



**THE
AMERICAN
UNIVERSITY**
WASHINGTON, D.C.

catalog 1970-71 bulletin

Degree Programs

College of Arts and Sciences

Associate in Arts

General Studies

Bachelor of Arts

American Studies
Anthropology
Art
Communication
Economics
Education—Elementary
English
History
Interdisciplinary Studies
Language (French, German, Russian, Spanish)
Language and Area Studies
Mathematics
Music
Philosophy
Physics
Psychology
Religion
Sociology
Speech Arts
Statistics

Bachelor of Fine Arts

Bachelor of Music

Bachelor of Music Education

Bachelor of Science

Applied Mathematics
Biology
Chemistry
Distributed Sciences
Health, Physical Education and Recreation
Interdisciplinary Studies
Mathematics
Medical Technology
Physics
Statistics
Speech Arts

Master of Arts

Anthropology

Art History
Church Music
Communication
Economics
Education
English
History
Interdisciplinary Studies
Language (French, German, Russian, Spanish)
Language and Area Studies
Linguistics
Mathematics
Music
Philosophy
Physics
Psychology
Religion
Speech Arts
Sociology
Statistics

Master of Education

Master of Fine Arts

Master of Science

Biology
Chemistry
Physics

Master of Science in Science Teaching

Doctor of Education

Doctor of Philosophy

Anthropology
Chemistry
Economics
Education
History
Interdisciplinary Studies
Mathematics
Philosophy
Physics
Psychology
Sociology
Statistics

School of Nursing

Bachelor of Science

School of Business Administration

Associate in Business Administration

Accounting
General Business

Bachelor of Science in Business Administration

Accounting
Business and Economics
Business Statistics
Computer Systems
Employee Relations
Finance
General Business
Industrial Relations and Personnel Management
International Business
Marketing
Pre-Law
Production Management
Real Estate
Transportation and Logistics

Master of Business Administration

Accounting
Banking

Business-Government Relations
Business Logistics
Business Statistics
Church Administration
Computer Systems
Financial Management
Life Insurance
Property and Casualty Insurance
Industrial Relations
International Business
Investment Analysis
Land Planning and Use
Legal Aspects of Business
Management Information Systems
Management (Business) Economics
Marketing
Operations Analysis
Operations Research
Production Management
Personnel Management
Public Relations in Business
Purchasing

(Continues on back cover)

The American University Bulletin: Catalog Issue



**Information as of
July 1970**

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Copies may be obtained by calling or writing the Director of Admissions.



1970-1971 Academic Calendar

September 14	Fall Semester classes begin
November 26-28	Thanksgiving holidays
December 23	End of fall semester
January 4	Intercession
February 1	Spring semester classes begin
February 15	Washington's Birthday holiday*
February 24	University's Founder's Day
March 29-April 3	Spring vacation
May 25	Spring semester ends
May 30	Fifty-seventh annual Commencement
June 14	Summer sessions classes begin
August 20	Summer sessions classes end

*The University in keeping with Federal government policy, will observe Public Law 90-363 "Monday Holiday Law" which becomes effective January 1, 1971

1970

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1971

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Correspondence Directory

Admission Director, Office of Admissions, Asbury Building

Housing Director of Housing, McDowell Hall

Scholarships and Loans Director, Office of Student Aid, Mary Graydon Center

Part-time Employment Director, Placement Office, Mary Graydon Center

Counseling Director, Counseling Center, Mary Graydon Center

Program Information Office of the Dean, the respective college or school

Records and Transcripts Registrar, Asbury Building

International Student Advisor International Student Office, Mary Graydon Center

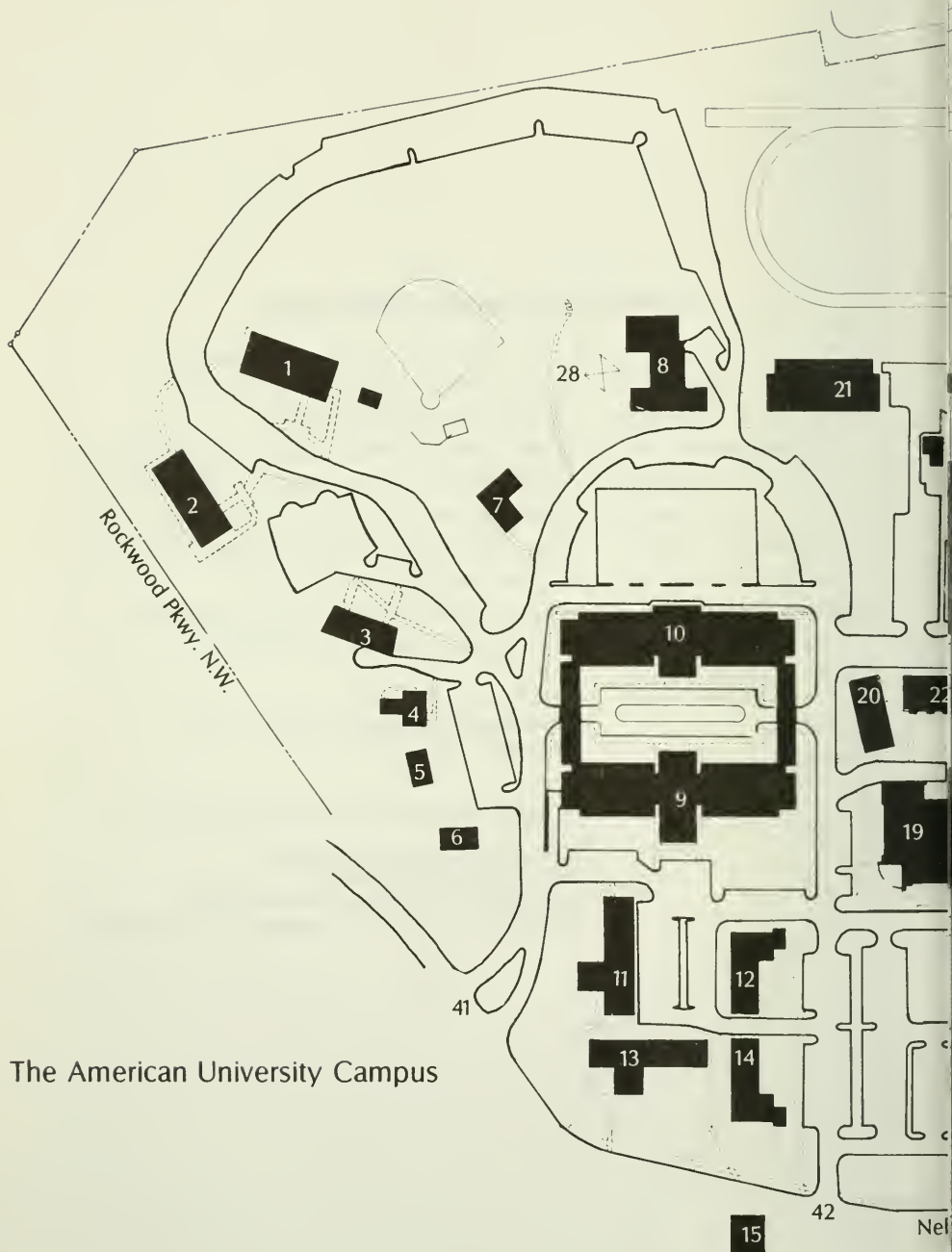
Financial Transactions Office of Student Account, Leonard Center

*To complete above
addresses, write:*

The American University,
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016

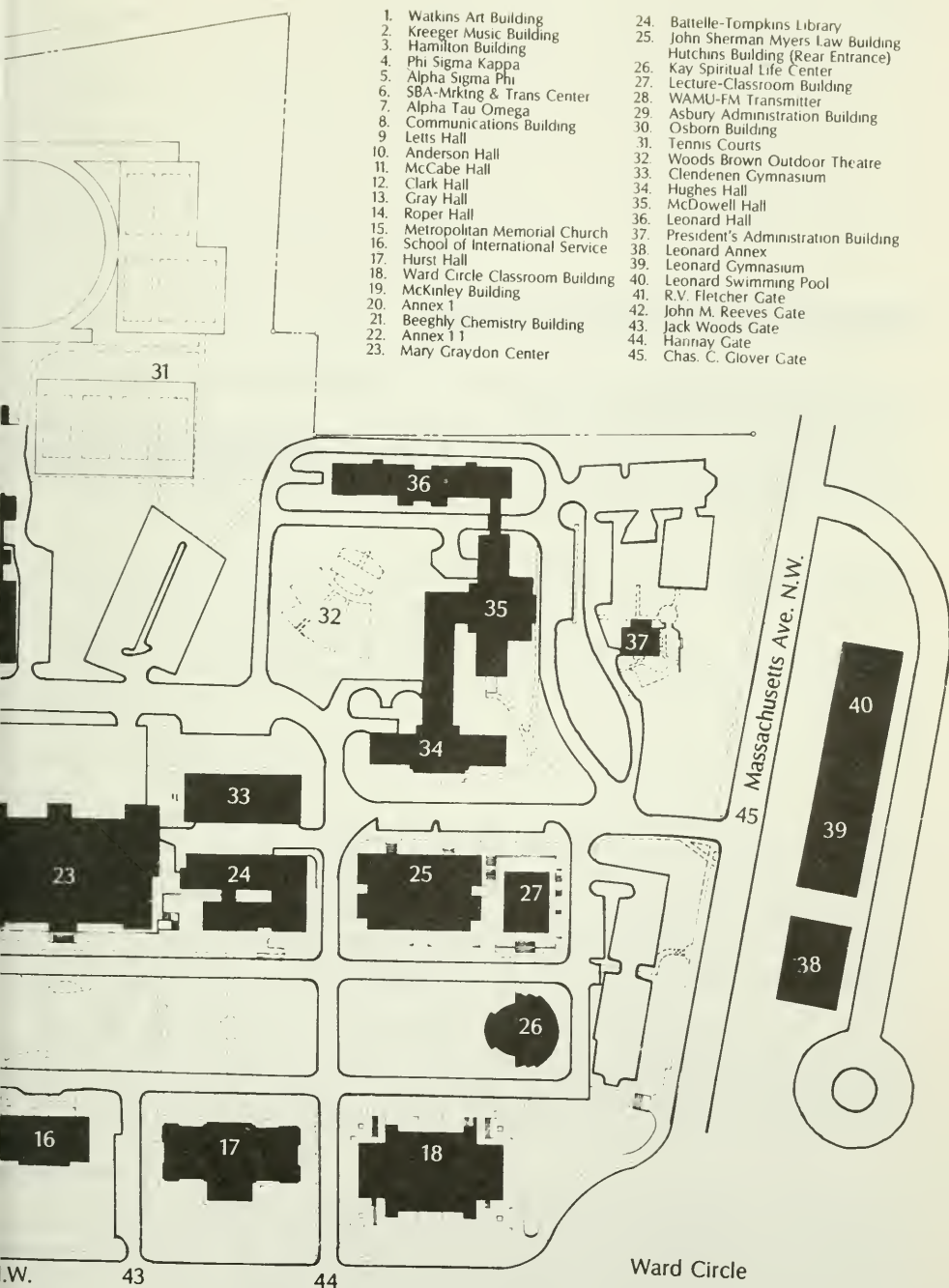
For additional information, phone, write or visit:

Office of the Director of Admissions
THE AMERICAN UNIVERSITY
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016 Telephone: (202) 686-2000



The American University Campus

1. Watkins Art Building
2. Kreeger Music Building
3. Hamilton Building
4. Phi Sigma Kappa
5. Alpha Sigma Phi
6. SBA-Mrking & Trans Center
7. Alpha Tau Omega
8. Communications Building
9. Lettis Hall
10. Anderson Hall
11. McCabe Hall
12. Clark Hall
13. Gray Hall
14. Roper Hall
15. Metropolitan Memorial Church
16. School of International Service
17. Hurst Hall
18. Ward Circle Classroom Building
19. McKinley Building
20. Annex 1
21. Beeghly Chemistry Building
22. Annex 11
23. Mary Graydon Center
24. Battelle-Tompkins Library
25. John Sherman Myers Law Building
26. Hutchins Building (Rear Entrance)
27. Kay Spiritual Life Center
28. Lecture-Classroom Building
29. WAMU-FM Transmitter
30. Asbury Administration Building
31. Osborn Building
32. Tennis Courts
33. Woods Brown Outdoor Theatre
34. Clendenen Gymnasium
35. Hughes Hall
36. McDowell Hall
37. Leonard Hall
38. President's Administration Building
39. Leonard Annex
40. Leonard Gymnasium
41. Leonard Swimming Pool
42. R.V. Fletcher Gate
43. John M. Reeves Gate
44. Jack Woods Gate
45. Hannay Gate
- Chas. C. Glover Gate



Regulations Subject to Change

The educational process necessitates change. This bulletin must be considered as informational and not binding on the University

Each step of the educational process, from admission through graduation, requires appropriate approval by University officials. The University must, therefore, reserve the right to change admission requirements or to refuse to grant credit or a degree if a student does not satisfy the University in its sole judgment that he has satisfactorily met its requirements.

Introduction

The American University seeks to respond to the needs of the last quarter of the twentieth century as it anticipates the needs of the twenty-first. As a private, urban university, it enjoys the freedom to experiment while it recognizes an obligation to lead in the search for education that is both firmly based on the past and relevant to the present.

The American University offers its students an added dimension because it is located in Washington, D.C., the seat of national government, the focus of world attention, the center where public and private interests meet, the capital city in which decisions are made that affect the nation and the world.

The University campus is situated just beyond "Embassy Row" in a quiet residential neighborhood in far northwest Washington.

History

The American University was founded by Methodist Bishop John Fletcher Hurst as a Protestant institution devoted specifically to graduate education. The University was chartered by an Act of Congress in 1893, officially dedicated in 1914, and awarded its first degrees in 1916.

In 1925 the need for undergraduate liberal arts education was recognized with the establishment of the College of Liberal Arts, now the College of Arts and Sciences. Other schools added to the University, in chronological order, are: Washington College of Law, 1949; School of Business Administration, 1955; School of Government and Public Administration, 1957; School of International Service, 1958; College of Continuing Education, 1964; and Lucy Webb Hayes School of Nursing, 1965.

The University has retained its close relationship to The Methodist Church and is known today as a "national Methodist university." In 1956 a portion of the University campus was deeded to Wesley Theological Seminary. The addition of a School of Nursing was the outgrowth of the bond between the University and nearby Sibley Memorial Hospital, another Methodist-related institution. The National Methodist Church, Metropolitan Memorial, is located across Nebraska Avenue from the campus.

Accreditation

The American University is accredited by the Middle States Association of Colleges and Secondary Schools and the University Senate of The Methodist Church. It is a member of the Association of American Colleges, the Association of Urban Universities, the Association of University Evening Colleges, the National Intercollegiate Athletic Association, and is approved by the American Association of University Women. A charter member of the Council of Graduate Schools in the United States, the University is also a member of the Midwest Conference on Graduate Study and Research.

The School of Business Administration is a member of the Middle Atlantic Association of Colleges of Business Administration and charter member of the American Assembly of the American Association of Collegiate Schools of Business.

The Washington College of Law is a member of the Association of American Law Schools and approved by the American Bar Association.

The Department of Education in the College of Arts and Sciences is a member of the American Association of Colleges for Teacher Education and accredited by the National Council for Accreditation of Teacher Education in both elementary and secondary areas.

The Department of Music in the College of Arts and Sciences is a member of the National Association of Schools of Music.

The Department of Chemistry, College of Arts and Sciences, is accredited by The American Chemical Society.

The School of Nursing is accredited by the National League for Nursing and approved by the Nurses' Examining Board of the District of Columbia.

Physical Facilities

There are fourteen classroom buildings, five residence halls, an inter-denominational religious center in addition to various administrative facilities on the sixty-six acre campus.

Arts Center

The Watkins Art Building, which opened in 1962, contains studios, lecture rooms and graphic arts workshops. Teaching studios, practice rooms and a recital hall are found in the Kreeger Music Building. The final unit of the Arts Center will house the Speech Arts Department and a new theater to replace the Clendenen Theater which, together with the Woods-Brown Amphitheater, provides stages for campus productions and convocations.

Technical Facilities

The language laboratory in Asbury can serve more than one hundred students simultaneously. Dial-Access facilities have been installed in the School of International Service, the Music Department, Mary Graydon Center, and the residence halls as well as in the student lounge in the Department of Languages and Linguistics. Students may listen to music, guest speakers, or classroom lectures in addition to language tapes. Dial-Access operates twenty-four hours a day.

Almost all buildings on campus have closed circuit television capability for conferences, teacher training, and production and broadcasting classes. Radio and television production and broadcast studios and the campus radio stations, WAMU-AM and WAMU-FM are located in the Broadcast Center. The new FM transmitter permits a three hundred mile broadcast radius.

Research Facilities

The University library receives 2,000 periodicals and contains 300,000 catalogued items. Included are excellent pre- and post World War I materials, League of Nations and United Nations documents, the Peace Society Library, the Artemas Martin collection of rare materials on mathematics, the Friedrich collection on economics, the Franklin collection on pre- and post-World War II Germany, and a fine collection of European diplomatic papers. The library also has on microfilm the complete card catalog of the Toyo Bunko Oriental Library of the National Diet Library and the University of Tokyo.

A computer listing of the Library's holding is provided monthly. Materials not available in the University library may be obtained through the inter-university loan service.

Computation Center

The University provides computer facilities for student and faculty research projects through the Computation Center located in McKinley building.

An IBM 1130 computing system having 32,767 words of core storage with 1403 printer, 2501 reader, 1442 punch, one disk and an on-line incremental plotter is available.

Instruction in FORTRAN and in utilization of the system software packages is provided by the staff of the Center.

Recreational Facilities

Most of the University's recreational facilities are located in Leonard Center where students enjoy billiards, bowling, sauna baths, swimming, and the use of a gymnasium. Outdoor recreational facilities include eight newly surfaced tennis courts and a standard regulation track.

Student Union

The hub of campus life is Mary Graydon Center which contains faculty and student dining facilities and a snack bar. The Center houses Student Life administrative offices which include Placement, Student Activities, Financial Aid, and Counseling Offices and meeting rooms for student organizations such as the Student Association are also available.

Alumni Association

The alumni, in excess of 20,000, represent The American University in all 50 United States, and in many foreign countries.

Through the annual Alumni Fund, the alumni support scholarships for undergraduate and graduate students and contribute to the operating expenses of the University.

The area chapters in major cities and groups of alumni with special interests in common provide a channel for student recruiting, job placement assistance, a friendly welcome to alumni new to the city, continuing education with visiting faculty, and fellowship.

Through elected officers, the National Board of Governors and committees, the association makes available to the University and the students the expertise, experience and influence of alumni established in their communities and professions.

The Students

Faculty and Enrollment

The student body of the University normally is composed of students from all 50 states and approximately 80 foreign countries. In the 1969-70 academic year, full-time undergraduates numbered 4,846. A total of 3,659 enrolled for full-time and part-time graduate study and more than 5,816 students attended on a non-degree basis either on the campus or at various metropolitan Washington and off-campus locations.

Schools and Colleges

- College of Arts and Sciences
- Washington College of Law
- School of Business Administration
- School of Government and Public Administration
- School of International Service
- College of Continuing Education
- Lucy Webb Hayes School of Nursing

Residence Facilities

- Women (Anderson Hall, Hughes Hall, Letts Hall)—1,849
- Men (Leonard Hall, McDowell Hall)—882

Washington Semester Program—120 participating institutions

This is a program in which participating institutions throughout the nation cooperate with the University, enabling honor students from other schools to come to AU for one semester to study government in action through seminars, independent research, and field trips to government agencies.

Faculty 1969-70

- Full-time—324
- Part-time—316

Degrees Conferred—Class of 1969

School or College	Associate	Bachelors	Masters	Ph D	Ed D	J D	Total
College of Arts and Sciences	5	645	189	21	6	—	867
School of Business Administration	5	152	153	4	—	—	314
School of Gov and Public Admin	—	222	150	5	—	—	377
School of International Service	—	99	106	15	—	—	220
College of Continuing Education	31	24	10	—	—	—	65
Washington College of Law	—	—	—	—	—	147	147
Nursing	—	11	—	—	—	—	11
Total	41	1 153	608	45	6	147	2,001

Admission Information

Admission for Undergraduates

Application for admission to undergraduate degree programs may be made for a given fall or spring semester.

In summer sessions or in the January intersession, undergraduate degree applicants may take courses as non-degree students. Such course work may be transferred to degree status when and if degree status is granted. If degree status is not granted, the student may not take courses in any category at the University.

The applicant is responsible for requesting that official transcripts and test scores be sent directly from the issuing institution to The American University, Office of Admissions.

Freshman Admission

Freshman applications and all supporting documents must be on file in the Undergraduate Admissions office by the following dates:

For Fall
March 1

For Spring
December 1

Eligibility

A graduate of an approved secondary school who has a minimum grade average of "C" or the equivalent, who has completed 16 acceptable units, 15 of which are academic or college preparatory in nature and include 4 units in English and 2 units in mathematics, who ranks in the upper half of the graduating class, and who achieves acceptable scores on the Scholastic Aptitude Tests of the College Entrance Examination Board will be considered for freshman standing. Applicants to the College of Arts and Sciences must also have completed two years of a foreign language.

How to Apply

The applicant is required to submit the application forms and a non-refundable application fee of \$15. Forms may be obtained by writing or telephoning the Office of Admissions.

The secondary school should be requested to forward an official transcript directly to the Office of Admissions as soon as possible.

The following College Entrance Examination Board tests should be taken no later than January, and the Board should be requested to send official score reports directly to the Office of Admissions.

1. *The Scholastic Aptitude Test*
2. *The English Achievement Test*
3. *The Mathematics Achievement Test*, Level I or Level II
4. Candidates for admission to programs offered in the College of Arts and Sciences or the School of International Service are also required to take the appropriate *Foreign Language Achievement Test* by January if possible, but not later than May.

Students who are participating in English, mathematics, or foreign language courses under the Advanced Placement Program of the College Entrance Examination Board and who plan to submit their examination results for credit and/or placement consideration need not take the Achievement Tests in the areas covered by this program.

Last, a teacher's recommendation form, supplied with the application, should be presented, together with an envelope addressed to the Office of Admissions, to a teacher of the applicant's choice for completion and forwarding to The American University.

School of International Service Freshman Applicants.

In addition to standards and procedures pertaining to regular undergraduate admission, candidates for admission to the School of International Service must present evidence of outstanding personal and academic qualifications. Eligibility for freshman admission consideration requires (a) at least a "B" average in secondary school, (b) a rank in the top quarter of the secondary school graduating class, and (c) College Entrance Examination Board Scholastic Aptitude Test scores totaling at least 1150. Other requirements include character and leadership qualities, and personal interests. Approximately 100 students enter the freshman class each year.

"Early Admission"

The American University offers an opportunity for early admission to freshman applicants whose superior ability, academic achievement, and general maturity indicate that they are ready to initiate collegiate work a year earlier than normal. Such applicants must have fulfilled the general requirements set out above.

The Director of Admissions will be pleased to send information to secondary school principals, counselors, or individual students inquiring about such admission. Each individual is considered on his own merits. However, major factors important to evaluation are:

- (1) The secondary school record, with special reference to grades achieved and the pattern of courses taken,
- (2) Performance on the College Entrance Examination Board Tests,
- (3) The recommendation of the secondary school principal and counselors,
- (4) A letter from the applicant stating the reasons for seeking early admission,
- (5) Possibly an interview with a screening committee. Occasionally, additional tests of ability, evidence of maturity, or interest may be requested.

Notice of Admission

Strongly qualified applicants, whose credentials are complete, will be notified during December, January, and February by a preliminary notice of acceptance intended to advise them that their admission has been approved contingent upon satisfactory completion of the senior year's program. Instructions for reply will be sent on or about April 1.

Applicants for whom all required admission material and supporting documents are on file by March 1 will receive one of the following on or about April 1:

- (1) *Notice of Acceptance* and the corresponding instructions for reply, or
- (2) *Alternate Notice* indicating that they are on the waiting list for further consideration if space permits, or
- (3) *Notice of Denial*.

Deposit

Applicants who are admitted and who plan to attend The American University will be required to pay a non-refundable tuition deposit of \$100. If University-supervised housing accommodations are desired, an additional \$100 deposit must be paid. Details concerning the deposits are furnished with the instructions for reply. See also the section under *Housing*.

Advanced Placement

By the following means freshman applicants may earn advanced standing credit which may be used toward fulfilling degree requirements:

- (1) *The College Entrance Examination Board's Advanced Placement Program.*

In some secondary schools enriched courses are offered under this program. On the basis of scores achieved in the special examinations given, the applicant may be granted actual college credit, or placement in advanced college courses.

- (2) *The College Level Examination Program*

Credit may be earned for superior performance in the following *Subject Matter Examinations*:

Introductory Calculus
 English Composition
 General Chemistry
 General Psychology
 Tests and Measurements
 Introductory Sociology
 Marketing

For information about this program write the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540, or Box 1025, Berkeley, California 94701.

(3) *Credit earned while in attendance in a regionally accredited college or university either in a summer session or during the regular school year.*

If, however, such course work was used to fulfill required secondary school work, no college credit will be granted. Applicants must have an official transcript of the work completed sent directly to the Office of Admissions.

Credit may be earned in a combination of the above programs, except that duplicate credit is not given.

Equivalency Diplomas

Holders of equivalency diplomas issued by state Departments of Education are eligible for consideration as freshmen, but are subject to an entrance examination at the direction of the Office of Admissions.

Veterans or present members of the Armed Forces who have taken the General Educational Development Test, the Comprehensive College Test, or the General Examination of the College Level Examination Program, should apply to their state Department of Education for an equivalency diploma. Official certification of the diploma should be sent by the state Department of Education directly to the Office of Admissions.

Admission for Transfer Students

Candidates who have at any time been in full-time attendance at another College level institution or who have completed the equivalent of one semester's work by part-time attendance, are considered as transfer applicants.

Applications and all supporting documents must be on file in the Office of Admissions by the following dates:

<i>For Fall</i>	<i>For Spring</i>
June 1	December 1

Eligibility

To be considered for transfer admission applicants should have maintained a minimum "C" average or the equivalent, and should be in good academic and social standing at the school previously attended.

Transfer students may normally expect to receive credit for courses taken at regionally accredited collegiate institutions if the courses were completed with grades of A,B,C, or the equivalent of P on a pass-fail system (where "P" is specifically designated as indicating a quality of work no lower than "C" on a conventional grading scale), and if the courses are comparable in content with those offered at The American University. Courses accepted for transfer will not be included in the grade-point average to be maintained at The American University, but they will count toward the total number of courses required, with the following conditions:

(1) No more than 60 semester hours or the equivalent of course work completed in a college-transfer program at a two-year college may be accepted at The American University.

(2) A maximum of 30 credit hours, or the equivalent, may be accepted on transfer for a combination of relevant work completed satisfactorily (a) in Armed Services school courses recommended for baccalaureate credit by the American Council on Education, or (b) for correspondence or extension courses completed through the United States Armed Forces Institute.

(3) An additional 30 credit hours or equivalent may be granted for relevant work completed in non-degree, extension, or correspondence courses offered through a regionally accredited institution which accepts the credit for its own degrees.

(4) A minimum of 30 semester hours or the equivalent must be completed in residence at the American University and all departmental requirements must be completed.

Transfer to the School of International Service

Students from other regionally accredited collegiate institutions and those in other majors at The American University, who have completed the freshman year, are eligible to apply for admission to the School of International Service. Applicants must have maintained a cumulative "B" average.

How to Apply

Transfer applicants must submit the appropriate forms provided by the Office of Admissions and a non-refundable application fee of \$15. In addition, transfer applicants must request that *ALL* previous colleges and secondary schools send transcripts to the Office of Admissions at The American University. *All institutions attended must be reported whether or not credit was earned or is desired by the applicant.*

If College Entrance Examination Board tests have been taken within the past five years, the candidate must request the Board to send official scores directly to the Office of Admissions at The American University.

Notification of Admission

As soon as possible after receipt of all required forms and credentials, The American University will notify the applicant for the spring semester of his admission status. Candidates for the fall semester are cautioned, however, to expect no notification before May 15 because of the administrative demands of the freshman admission program.

Deposit

Transfer applicants who are admitted to The American University and who plan to attend are required to pay a non-refundable tuition deposit of \$100. If University supervised housing accommodations are desired and available, an additional housing deposit of \$100 must also be paid. Details concerning the deposits are furnished with the instructions for reply. See the separate section on *Housing* of this catalog.

Admission for Part-time Undergraduate Degree Students

Any student employed for more than 20 hours a week is expected to register as a part-time student and should enroll for no more than 10 undergraduate hours or the equivalent per semester. Students may also register part-time for reasons other than employment.

The applicant considering application for part-time study in a degree program is cautioned that he may be unable to complete the necessary course work for the degree in evening classes only. Before applying, he should consult the department chairman of his proposed major to ascertain if the required courses will be available to him.

Eligibility

Part-time degree applicants are required to meet the same standards for admission as full-time applicants.

How to Apply

The applicant for part-time undergraduate study should follow the instructions under either *Admission for Freshmen* or *Admission for Transfer Students*, whichever is appropriate, with the following exceptions pertaining to College Board tests:

(1) If the applicant has taken College Board tests within the past five years, he is requested to contact the College Entrance Examination Board, Box 592, Princeton, New Jersey, or Box 1025, Berkeley, California, to request that official scores be sent directly to The American University Office of Admissions.

(2) If the applicant completed secondary school within the past two years and did NOT take College Board tests, he must arrange to do so. Information on how to apply may be obtained from the College Entrance Examination Board address given in No. 1 above.

(3) If the applicant completed secondary school MORE THAN two years ago and did NOT take College Board tests, he may be asked to take an alternate examination at the direction of the Office of Admissions of The American University.

Campus Visits and Interviews

Prospective students are invited to visit the University but are not required to do so as a part of the admission requirements. The student is asked to make an appointment with the Office of Admissions, three weeks in advance if by mail, two weeks if by phone.

Prospective freshmen may participate in group conferences conducted by an admission counselor, who will review admission policy and procedure, and answer questions about the

University. Applicants should be prepared to present a brief resumé of their academic qualifications, i.e. academic average, College Board scores, and rank in class.

Campus tours are available for visitors after the conferences.

Students attending another college or university who are interested in transferring to The American University may make appointments in advance for individual conferences with admission counselors. A transfer applicant should have an official transcript forwarded to the Admissions Office prior to his visit or bring a personal copy for use in the conference.

The Office of Admissions does not arrange classroom visits for prospective students. However, a visitor may attend classes with a friend enrolled at the University if permission of the professor has been granted in advance.

The University does not have facilities for the accommodation of overnight visitors.

Re-admission for Undergraduates

An undergraduate student whose study at the University is interrupted for any reason for a period of one semester or more (excluding the summer sessions and the intersession) must submit a formal application for re-admission to the Office of Admissions at least two months in advance of the beginning of the semester or summer session in which courses are desired. If such re-admission is approved, the student is subject to the academic requirements and regulations in effect at the time of his re-admission.

Graduate Admission

General

The minimum requirements for consideration for admission to graduate study at The American University are as follows:

- (1) possession of a bachelor's degree from a regionally accredited college or university
- (2) a 1.5 cumulative grade point average, based on a three point system, in the undergraduate program.

In seeking admission to graduate master's or doctoral degrees the student is expected to have maintained a cumulative grade point of 2.0 in each institution at which graduate work has been attempted. This grade point average does not apply, however, if the following stipulations are met:

- (1) a 2.3 cumulative grade point average in a master's degree program completed at an accredited institution, or
- (2) a 2.5 cumulative grade point average in 12 or more credit hours of a master's degree program still in progress at such an institution at the time of application evaluation.

Individual departments may require satisfaction of other criteria or requirements in addition to, not in lieu of, the University's minimum requirements. See these degree programs for these special requirements.

Applicants are requested to have applications and official transcripts sent directly from all colleges previously attended to the Admissions Office by June 1 for the fall semester and December 1 for the spring semester.

Provisional Standing

Each school or department within the University may admit to provisional standing a limited number of students who do not fully meet the minimum standards for admission. Previous study in graduate courses may be utilized in determining an applicant's eligibility for provisional admittance. By the end of one full semester of full-time study or by the first 12 hours of part-time study the student will be evaluated by his college, school or department. Continuation in the graduate program will be permitted upon favorable appraisal of the student's performance.

The provisional admission status of a graduate student who does *not* give satisfactory evidence of his capabilities will be cancelled.

Candidates for graduate degrees currently enrolled will be subject to those academic regulations in force at the time of their admission.

Clearance

A student must clear his admission status before registering for a course. Students who have not received notification of status should inquire directly at the Office of Graduate Admissions before attempting registration. A provisional student will be designated as such at the time he is admitted.

Transfer Credit

Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific times established by the teaching unit.

Summer Sessions

Applicants for summer sessions, who do not plan to pursue a degree at The American University, should consult the section in this *catalog* entitled "Summer Sessions" for separate application instructions.

International Student Admissions

Foreign students admitted as degree or non-degree students are required to send official transcripts directly from secondary schools and/or colleges, to the Office of Graduate Admissions. Proficiency in the Test of English as a Foreign Language is also required. The University may also require additional tests to determine such proficiency.

A non-immigrant student status ("F-1"), as outlined by the United States Department of Justice, requires the student to pursue a full course of study each semester during each period of enrollment. Students who fail to observe this regulation will not receive a "Certificate of Eligibility" (Form I-20) or any other letter of certification.

Students in the Exchange Visitor Visa (J-1) category requesting transfer to The American University's Private Exchange Visitor Program from another program number must obtain approval from the Foreign Student Advisor before admission to the University becomes valid.

Graduate Re-Admission

Continuation in the degree program may be granted once for a period of three years in the light of the requirements of the particular degree in effect at the time of re-admission, and may involve taking additional courses and/or other work. When a student is re-admitted under these circumstances, the length of time he will be allowed to complete his degree requirements and any additional courses, examination, or other requirements which are deemed necessary by the teaching unit, will be specified.

Any degree calling for additional prerequisite courses has the Statute of Limitations (page 29) extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

GRADUATE ADMISSION REQUIREMENTS OTHER THAN UNIVERSITY REQUIREMENTS

	Letters Recom- mend		G R E		Other	Other	G R E		Letters Recom- mend		
	PhD	M A	Apt	Adv			Adv	Apt	M A	PhD	
Anthropology	\	\					\	\	\	\	Philosophy
Communication		\			# Interview		\	\	\	\	Psychology
Economics	\		\				\	\	\	††	Sociology
Education	\		\	or	Miller Analogies Test				\		Speech Arts
English		\				Adm Test for Grad Study in Business				\	Business Administration
Fine and Applied Arts		\			Portfolio to Dept		\		††	\	Government and Publ Adm.
History	\	\	\	\	Also MST History				\		Technology of Management C T A
Music		\					\		\	\	International Service
Nat Sciences and Math	†† \	\				Test of English as For Lang					International Students

* Recommended not required †† Unless M A earned in Department

Applicants for Department of Communication should contact Departmental Office.

If there are different requirements at the time of application candidates will be notified

Admission for Non-Degree Students

General

A student not wishing to enroll in a course of study leading to a degree at The American University may apply for admission to courses of his choice for which he has the necessary background and special qualifications. Through the non-degree program, the College of Continuing Education, meets the needs of those individuals who do not desire to pursue a formal degree. The non-degree program enables students to register for courses which may provide either personal enrichment or professional preparation. Such courses may be audited or taken for credit.

Non-degree students are not permitted to take courses under the Consortium of Universities arrangement.

A non-degree student is not eligible to enroll in 600 or 700 level courses unless he secures in advance the written permission of the dean or department chairman of the school or college who has jurisdiction over the course.

Foreign students registering in the English Language Institute (ELI) please refer to the section for English Language Institute.

Enrollment

A non-degree student is limited to a part-time enrollment of no more than two (2) courses. However, a non-degree student may attend The American University as a full-time, non-degree student if he meets one or more of the following criteria:

(1) has a bachelor's degree and is pursuing a course of study leading toward a teaching certificate;

(2) has a bachelor's degree and is making up undergraduate prerequisites leading toward an advanced degree at the University (student must obtain the dean or department chairman's approval prior to registration);

(3) the student is in good standing at another institution and has been granted permission by his dean to attend The American University for the purpose of transferring credits received at The American University to his degree program at his home institution;

In all cases students must obtain permission from the Dean of the College of Continuing Education or member of the advisement staff. There will be no exceptions to the above regulations.

All non-degree students are held to the same level of academic standards as degree students. Non-degree students who do not obtain a "C" average (1.00 on a 3-point scale) will be placed on probation. If the student does not bring his average up to a 1.00 after an additional year's work, he will be dismissed from The American University.

Eligibility

There is no formal application to the University for admission to a non-degree program. Admission is part of the registration procedure. However, the following requirements apply:

(1) applicants must be over 21 years of age or will be 21 during the semester in which they plan to enroll (unless they are applying for the English Language Institute);

(2) applicants must be a graduate of a regionally accredited college or university or have obtained a high school diploma;

(3) applicants who have attended another college or university during the past calendar year must be in good standing at the institution and entitled to an honorable dismissal. Proof of this must be substantiated in writing by a school official, either at registration or prior to it. Also, students who have been dismissed from another university or college within the past two years must make an appointment with the Office of the Assistant Dean, Advisement Section, College of Continuing Education, in order to determine the candidate's eligibility for admission at The American University;

(4) Students who have been dismissed or suspended from another institution within the past calendar year are not eligible to enroll in the College of Continuing Education as a non-degree student.

(5) Persons who have been denied admission to a degree program at The American University may not register as non-degree students.

Transfer

Students wishing to transfer from a non-degree status at The American University to a degree status should make application through the Office of Admissions. Those students seeking undergraduate admission may apply for degree standing for a given *Fall* semester, only. If a student is accepted into an undergraduate degree program at The American University, he may transfer a maximum of thirty (30) hours (or the course equivalent) of credit from a non-degree program to the degree program.

Graduate students may apply for admission to a degree program for any semester. Twelve (12) hours of graduate work may be transferred into a graduate degree program from a non-degree program.

English Language Institute

Foreign students wishing to enroll in the English Language Institute either on a full-time or part-time basis must have completed the equivalent of an American high school education (twelve years of schooling) or be at least 17 years of age at the time of enrollment. After filing

an application, students who are accepted will be sent a formal letter of acceptance and a certificate of eligibility for a student visa if one is required (Form I-20). Information and course dates will be mailed upon request by writing or telephoning:

English Language Institute
College of Continuing Education
The American University
Washington, D. C. 20016

Admission for International Students

Students who are not American citizens, whether applying for admission as degree or as non-degree students, must have official transcripts sent directly to the Office of Admissions from all secondary schools and/or colleges attended. *Test of English as a Foreign Language* is also required. The University may also require that they take additional tests to establish their eligibility for the academic programs and courses in which they wish to enroll. Foreign students should be certain that they have adequate funds before they come to the United States for study. Students who are applying for admission to the *English Language Institute for English only* may submit photostats or attested copies of transcripts, and need not take the Test of English as a Foreign Language.

Visa Requirements

The United States Department of Justice Immigration and Naturalization Service regulations governing non-immigrant "F-1" foreign students require foreign students in this category to pursue a full course of study while maintaining non-immigrant student status. In compliance with the provisions under which this institution has been classified as a training agency for foreign students, The American University requires all non-immigrant "F-1" students to pursue a full course of study each semester during the period of their enrollment.

Under this regulation an undergraduate foreign student will be required to register for four courses (12 credit hours). Any modification of this requirement which results in a course load below these minimum requirements must be authorized by the International Student Director in consultation with the Admissions Officer and the academic adviser.

Students who fail to observe the above requirements will be ineligible to receive a *Certificate of Eligibility* (Form I-20) and all other letters of certification in support of their continuation in non-immigrant (F-1) student status.

Students in the Exchange Visitor Visa category (J-1) requesting transfer to the University's Private Exchange Visitor Program from another program number must obtain approval from the International Student Director before admission to the University becomes valid.

Tuition and Expenses

Tuition and General Fees

Charges per semester are as follows:

Undergraduate Students			
Full-time	\$1,010	per semester	
Part-time	232	per course	
Graduate Students			
Full-time	\$ 70	per semester hour	
Part-time	\$ 70	per semester hour	
Non-degree Students			
	\$ 216	per course or	
	70	per semester hour	
Law Students			
Full-time	\$ 925	per semester	
Part-time	69	per semester hour	
Off-Campus Programs			
Part-time	\$ 156	per course or	
	52	per semester hour	

Given a continuation of the current economic conditions as well as the need to continue and accelerate academic growth of the University, it can be reasonably expected that tuition and fee increases within a 10-15% range will be required each foreseeable year beyond 1970-71.

Auditors pay the same charges as students enrolled for credit and are subject to all applicable special fees listed below.

Charges for institutes and other special courses may be found under their respective headings in the *Schedule of Classes*

Residence Hall Charges per semester	\$ 265	triple occupancy
\$ 300	\$ 300	double occupancy

Board Charges: 5-day contract per semester	\$ 215
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Special Fees (not refundable); charges listed below are not included in Tuition and General Fees. Courses and Laboratories may charge other special fees as listed in the *Schedule of Classes*:

Application fee for all degree students and for non-degree students seeking admission to a degree program	\$ 15
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Student activities fee (required of full-time undergraduates, optional to others who participate in the University's athletic and social activities)	\$ 27	a semester
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Late registration (effective first day of semester)	\$ 10
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Late payment of financial obligations	\$ 10
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Meal ticket replacement fee	\$ 3	each
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Returned check fee (for personal checks not honored by bank)	\$ 3	each
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Health fee (not charged separately to fulltime undergraduate students, required of all others who wish to use infirmary facilities)	\$ 20	a semester
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Law Students Fee	\$ 15	a semester
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Admission testing	\$ 2	each test
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Official transcripts (after first—not available during registration periods)	\$ 1	each
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Student Picture Identification Card	\$1 original; \$ 5	replacement
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Library card replacement fee	\$.50
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Graduate Student Fees—The following charges are applicable to graduate students only:

Maintaining matriculation fee (not refundable)	\$ 50
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Comprehensive examinations

Master's and Doctoral

For each examination	\$ 10
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Additional fee if *in absentia*

Master's	\$ 100
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Doctoral	\$ 200
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Supervision of thesis (if no thesis seminar is completed)

Master's Degree	\$ 216
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Doctor's Degree	\$ 432
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Microfilming of thesis or case studies

Master's thesis and case studies	\$ 25
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Doctoral dissertation	\$ 35
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Deferred Payment Plan

Students registered for a minimum of one course (undergraduate) or three semester hours (graduate) of course work during the semester whose total charges are more than \$180 after deducting all forms of tuition assistance may elect to use a deferred payment plan. Details are published each semester in the *Schedule of Classes Bulletin*.

Financial Aid

The American University has a varied program of financial aid for undergraduate students (including transfer students) of scholarships, low-interest long-term loans, Educational Opportunity Grants, part-time employment, or any combination of these resources. The University participates in all the federal aid programs for which it is eligible, including National Defense Education Act loans, Nursing student loans, Cuban loans, Law Enforcement Education Program loans and grants, Educational Opportunity Grants, and the college work-study program.

Entering freshmen and junior college graduates are eligible to apply for scholarships, but transfer students are not eligible for scholarships until they have completed two semesters of work at the University. However, they are eligible for NDEA loans on admission.

Financial aid is awarded on the basis of the student's academic performance, financial need, and qualities of leadership and citizenship.

In addition to the Application for Financial Aid, the Parents' Confidential Statement must be filed by all applicants who are 25 and under and supported by their parents. If the applicant is under 25 and independent, married or single, he must file an independent student's budget sheet along with a notarized statement from his parents indicating that no support has been given, nor was he claimed as a tax deduction within the previous college year. If the applicant is over 25 and independent, married or single, and not supported by parents nor claimed by parents as a tax deduction for the previous college year, he must file an independent student's budget sheet.

Applications and supporting credentials for all types of financial aid, including NDEA loans, must be filed by February 1 (entering freshmen), March 1 (enrolled undergraduates or entering transfer students) preceding the academic year of the award for the fall semester, by November 1 for the spring semester, and by April 1 for the summer session. Scholarships are awarded for the academic year but not for the summer session.

Undergraduate students requiring financial assistance should contact the Director of Student Aid. Graduate students requiring financial assistance should contact the Office of Graduate Studies and Research. Brochures and applications for financial aid are sent upon request.

Loans

There are various University loans available ranging from small short-term emergency loans carrying no interest to long-term loans with interest.

Employment

Many students also earn a portion of their college expenses through part-time employment on the campus or in the Washington community. Inquiries concerning employment other than the college-work-study program should be addressed to the Director of Placement.

Residence Facilities

Residence Halls

Halls for men and women are located on campus. The rate is \$265 a semester for a triple room (freshmen) and \$300 for a double room (upperclassmen). For details on residence hall procedures and policies, write the Director of Housing for a copy of the *1970-1971 Residence Hall Booklet*.

Room Reservations

Applications for residence hall rooms should be addressed to The Housing Office, The American University, Washington, D.C. 20016.

A \$100 deposit will be held by the University as long as the student continues to live in a residence hall. Upon completion of his current contract or upon graduation, the \$100 will be refunded less any unpaid obligations provided the student has fulfilled all room reservations and contracts made by him during his attendance at the University. If returned by the U.S. Post Office, the deposit will be held for a calendar year after the student leaves, and then will be forfeited and deposited in general university funds.

Resident students must observe all regulations specified in the contract which they (and their parents, if students are under 21) sign, as well as University regulations. They will be held responsible for damage to their rooms during their period of occupancy, and will be billed either individually or with roommates for damages.

Refund of Housing Payment

A schedule for refunds upon withdrawal from the University during the semester will be announced and will thereafter be available in The Housing Office. Refunds are not usually made to students moving off campus before completion of their contractual obligation.

Room Furnishings

Each room contains a bed, chest, desk, chair and closet space for each resident. Electrical equipment brought by the students is limited to small appliances such as clocks, radios, and irons. Individual cooking equipment such as broilers and fry pans can not be used in the rooms. There are limited kitchen facilities in the residence halls.

Linen Service

An optional linen service is available to residents. Arrangements for the service can be made after student receives his housing assignment.

Dining Halls

There is a cafeteria, à la carte dining room, snack bar and student social club in Mary Graydon Center. Five day (Monday through Friday) meal contracts are available for \$215 a semester, beginning with the first day of classes and ending on the last day of classes (excluding vacations). All resident students are urged to buy meal contracts since there are no restaurants near the University.

A student who loses his meal ticket should report it at once to the University Cafeteria Office. A charge of \$3 is made for each duplicate issued. In the event that a student wishes to cancel his meal ticket, applications must be made with The Housing Office *not earlier* than October 13, *nor later than* November 7, 1970. Requests from students under 21 must be accompanied by a letter from their parents giving their approval.

Health Service

During the fall and spring semesters, the University infirmary provides ordinary medical care and advice for most minor illnesses to full-time undergraduate students and other full-time students who pay the health fee of \$20. The infirmary has no facilities for bed patients, and students in need of special care, examinations, or medication or who require attention during hours when the infirmary is closed, will be referred to the Sibley Memorial Hospital (or to another hospital of the student's choice) for consultation and treatment at their own expense. Full-time undergraduate students must submit with their application for admission, a report (on a form available from the Admissions Office) on the results of a physical examination by a physician of their choice.

Health Insurance

All full-time undergraduate and graduate students may elect to participate in a program of health insurance at the time of registration. This insurance is provided through a special University Blue Cross and Blue Shield plan and is designed to cover costs of medical services beyond those provided by the University.

Banking Facilities

The University operates no student banking facilities. A number of banks are located near the University campus. As a convenience to full-time resident students, the Office of Student Accounts in McDowell Hall will normally be able to cash personal checks up to \$50.00 upon presentation of the student identification card and the student picture card (cost \$1). Hours are 9:15 a.m.-1 p.m. and 2-3 p.m., Monday through Friday.

University Liability

Faculty, students, staff and guests are responsible for their personal property, clothing and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

General Academic Regulations

As a part of the process of achieving a high quality of educational experience for the student, the University is undergoing revision of its academic requirements. As a result, the information contained in this and other sections of this catalog may be revised during the course of the academic year. Students therefore are advised to contact their dean or department chairman to ascertain what new requirements may pertain to their individual academic degree program in Fall 1970.

Undergraduate Degree Requirements

University Requirements

As of fall 1970, the University has abolished its program of distribution requirements in the social sciences, natural sciences, mathematics, and humanities areas. The only remaining

requirement for all undergraduates is a two-course sequence of English composition and reading, unless waived.

Course Hours and Determination of Credits

Effective September, 1970, undergraduate graduation requirements will be changed from a minimum of 120 semester hours to a minimum of 32 courses. Under the course system, semester hours credit are no longer assigned to undergraduate courses. For purposes of transfer evaluation, however, it is recommended that a COURSE receive four semester hours credit. Students currently registered, or those contemplating transfer to The American University should use the following schedule in equating previously earned semester hours to the COURSE system. Work completed for credit hours is converted according to the following scheme:

15 credit hours	=	4 courses	75 credit hours	=	20 courses
30 credit hours	=	8 courses	90 credit hours	=	24 courses
45 credit hours	=	12 courses	105 credit hours	=	28 courses
60 credit hours	=	16 courses	120 credit hours	=	32 courses

Credit hours less than 15 or in excess of a multiple of 15 are converted to courses according to the following scale:

1 hr 1/4	2 hrs 1/2	3 hrs 3/4	4 hrs 1	5 hrs 1-1/4	6 hrs 1-1/2	7 hrs 2	8 hrs 2-1/4
9 hrs 2-1/2	10 hrs 2-3/4	11 hrs 3	12 hrs 3-1/4	13 hrs 3-1/2	14 hrs 3-3/4	15 hrs 4	

Graduate Degree Requirements

These degree requirements are currently undergoing revision by the University Senate for later application. Candidates for graduate degrees are advised to contact their own particular dean or department chairman for subsequent developments which may be incorporated into their programs.

Candidates for graduate degrees currently enrolled will be subject to those academic regulations in force at the time of their admission.

Admission—See page 17.

Entrance Examinations

Various schools and departments within the University require separate examinations such as the "Graduate Record Examination" or the "Admission Test for Graduate Study in Business" for admission. Other supporting documents such as letters of recommendation or evidence of professional experience may also be required for admission.

Evaluation of Graduate Students

The minimum cumulative grade point average required to maintain good standing in graduate study at The American University at both master's and doctoral levels is 2.0 (based on a 3.0 system) in all graduate courses attempted in residence at The American University. Schools or departments may require higher averages.

Advancement to Candidacy

Each dean or department chairman may at his option require a formal advancement to candidacy and determine the nature of the advancement procedure it will use. Advancement to candidacy may be described as a point in the student's academic progress during which his teaching unit formally evaluates his abilities for continuation in his degree program. The teaching unit may also administer qualifying examinations in order to determine this more effectively.

Course Hour and Residence Requirements

Master's Degree. At least 30 credit hours of graduate work, including a research requirement of six credit hours, is necessary for the completion of the Master of Arts and Master of Science degrees; 24 of these, including the research requirement, must be completed *in residence* at The American University.

Doctoral Degree: The requirement is the equivalent of 72 credit hours of graduate work.

(1) For a student who completes his entire graduate program at this University, partial fulfillment of the requirement may consist of 48 to 66 credit hours of course work and 6 to 24 hours of dissertation seminar, as may be permitted by his department or school.

(2) For students admitted with an appropriate master's degree, the master's degree will customarily count as 30 hours. In exceptional cases where the transferred degree required more than 30 hours, a maximum of 36 appropriate hours may be counted. The requirement beyond the master's degree is at least 30 hours of graduate course work in residence and a minimum of 6 but no more than 12 hours of dissertation seminar. Work taken at The American University prior to the student's application to the doctoral program may not be counted in the foregoing required hours.

(3) Students admitted without a master's degree must first attain doctoral standing and then must complete a minimum of 30 hours of graduate course work in residence and a minimum of 6 but no more than 12 hours of dissertation seminar, as permitted by his department or school.

(4) Once a student has been admitted to graduate work toward a degree he must obtain *prior* permission from his dean or department chairman in order to take graduate work at another institution which will count toward his degree objective at this University. Otherwise, such work will not be counted toward a degree at this University. Such work also may conflict with residence requirements.

Academic Load

A graduate student is considered full-time when carrying nine or more hours. In certain instances an academic teaching unit may certify a graduate student as full-time even though he carries fewer than nine hours. Students are referred to dean or department chairman for details.

In summer sessions, because of the combination of five-, eight- and ten-week sessions, there are various possibilities of full-time status. A student is considered full-time who carries any of the following schedules:

(1) six hours in either the first or second five-week session;

(2) three hours in either five-week session and three hours in the eight-week session—student is full-time for the period of overlap of the two sessions;

(3) three hours in either of the five-week sessions and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions;

(4) three hours in the eight-week and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions.

Tools of Research

Each dean or department chairman specifies the tool or tools of research required, if any. (See the individual school or department pages of this *catalog* for the tools that are required.) Tools relate to research in the discipline in which the student is studying. The student's satisfaction of tool requirements is certified by the teaching unit, which may sub-contract the job or do it itself. Normally, such tool or research requirements are satisfied before he attempts the thesis, dissertation, or related studies.

Examination Requirements

Comprehensive and other examinations (both oral and written) are designed to test mastery of both broad and specialized fields. They presuppose more reading and research in the fields than would normally be expected in a series of lecture-discussion courses. They are expected to evoke not only knowledge of the subject and appropriate professional literature but also to express intelligently comprehensive concepts and fundamental issues.

Master's Degree. At least one written examination, the nature and scope of which is determined by the student's teaching unit, is required. A final oral examination may be required at the option of the teaching unit. The student should consult his dean or department responsible to ascertain if it is required in his discipline.

Doctoral Degree. Four comprehensive examinations are required. At least two must be written and must be taken within one year after completion of residence requirements. The nature and scope of the remaining two examinations, as well as the chronology of their administration, is left to the discretion of the individual school or department in which the student is registered.

The required written examination for a master's degree administered at this University may be utilized as a qualification examination and may be substituted for one doctoral examination.

Examination Timetable

For both master's and doctoral degree students, their dean or department chairman (or designated representative) determines the time and eligibility for taking the examinations.

The Graduate Studies Office administers comprehensive examinations for graduate candidates three times a year as a service to the University academic community. Examinations are normally administered to both master's and doctoral candidates once each fall, spring and summer, with some exceptions. See the University Calendar in the *Schedule of Classes* for application dates.

However, a teaching unit may administer its own comprehensive examinations at times other than those indicated in the Calendar. Students who wish to be included in this latter category should consult their teaching unit directly.

All applicants for comprehensive examinations, whether administered by the teaching unit or by the Graduate Studies Office, must use the application form provided for the purpose, have it approved by their dean or department chairman, and pay the appropriate fee in the Office of Student Accounts, all before any applicable deadlines.

When application is made for Graduate Studies administration of the examinations, the candidate must take care to submit the form no later than the deadline announced in each semester's *Schedule of Classes*.

When candidates apply for the examinations prior approval must be secured from the teaching unit.

Examination Fields

Although proposed fields for comprehensive examinations may have been planned early in the graduate student's academic career, it is possible to change the fields up until the time the student actually submits the application for admission to the comprehensive examinations. Each school or department offers its current list of standard comprehensive examination fields, including certain "core" fields and areas in which candidates in particular degree programs must present themselves for examination. (A list of these fields is presented in the respective sections of this catalog.) A student may choose from the list (including the required core) the ones which are appropriate to his own interests and objectives.

In some disciplines, it is possible to choose a field outside the major area of interest. In choosing such a field, however, the candidate is required to choose one which is available at the time for his application to the comprehensive examinations.

Examination Grading

Normally, each comprehensive examination written by a candidate is read by two readers and is rated distinction, satisfactory, or unsatisfactory by each reader. In order to pass the examinations the candidate must obtain at least satisfactory from both readers in each of the fields in which he was examined. In the event of a disagreement in the ratings between readers as to whether or not the candidate should pass, a third reader is appointed to break the deadlock. Also, the candidate may normally receive no more than two single ratings in separate fields of unsatisfactory (three if doctoral) in order to pass. Therefore, all readers of any one candidate must report grades before any meaningful "pass" or "fail" of the candidate can be ascertained.

Examination Grading Variations

However, each individual dean or department chairman may elect to determine a different system of grading comprehensive examinations for his own candidates. Consult the specific school or department of your major interest to ascertain what system is used. The system described above is the traditional one in use throughout most of the University.

Re-examination

In the event that a candidate for a graduate degree fails part or all of his examinations (whether qualifying or comprehensive) he may be permitted a second attempt within two years.

The nature and extent of the examination or examinations to be retaken is determined by his teaching unit. However, no more than one retake is allowed.

Thesis and Non-Thesis Options

For master's candidates the thesis is expected to demonstrate the student's capacity to carry on original and independent research. Some schools and departments of the University offer the opportunity to substitute a case study, an in-service project, an original creative work, or specific advanced research courses, in lieu of a thesis for the master's degree. In every such case, the thesis seminar or other accepted alternative must be considered part of the residence requirement for the master's degree and must meet the standards set forth by the individual schools and departments as well as those of the University.

No academic credit is given for the master's thesis unless the student registers for the Thesis Seminar. However, he should not enroll for this seminar before he is ready to start work on his formal thesis proposal or the thesis itself.

Traditionally, an advisory committee is appointed for each candidate working on a thesis. The committee may be composed of one, two, or three members. An oral examination by this committee is often required. Suggestions for revision may be made as conditions to be met before members will sign the title page of the thesis. If the chairman of the thesis committee or the department chairman certifies failure to complete a satisfactory thesis, the student may be dismissed from the University.

A student who writes a thesis must adhere to the required form and content for the proposal and to the other procedures described in detail in the published guides which may be received from the Office of the Dean of his school or college.

Dissertation

Capping the requirements for achieving the doctorate is the dissertation, together with the required oral examination of the dissertation by the student's teaching unit. Normally, the candidate must have completed all other academic requirements for the degree before the oral examination can be held.

When a candidate is declared ready to proceed to the dissertation he must submit a dissertation topic proposal reporting the results of his preliminary research. This proposal is expected to contain, among other things, a concise statement of the major problem of research and of related supporting problems, the data to be used, a selected bibliography, a statement of the probable value or importance of the study, a brief description of the methods to be used, and a preliminary outline of the dissertation in some detail.

After approval of the proposal by the candidate's advisor it is presented to the dean of his school or college for final approval. Acceptance of the proposal indicates that the topic is a suitable one and that the dissertation will be accepted if developed adequately by the candidate. Acceptance of a dissertation topic proposal under no circumstances commits any department or school or the University to acceptance of the dissertation itself, however. The University will take responsibility for directing research only in fields and problem areas which its faculty members feel competent to handle.

A dissertation advisory committee of three to five persons is normally appointed by the candidate's academic dean for each candidate undertaking a dissertation. After the draft manuscript has received the tentative approval of all members of the committee, the committee chairman arranges for the oral examination. This covers the dissertation itself and the general field in which it lies. All members must agree that the candidate has passed the oral examination. Conditions to be met before final acceptance of the dissertation may be specified without necessarily holding a second oral examination.

If the chairman of the dissertation committee or the department chairman certifies failure to complete a satisfactory dissertation, the student is automatically dismissed from the University.

Students must either register for 6-24 hours of dissertation seminar or pay the equivalent dissertation supervision fee. The credit hours available is determined by the teaching unit.

Publication

It is the policy of the University to encourage publication of dissertations, case studies, and theses, with acknowledgment to the University. In the event substantial alterations are made before publication, this fact must be noted in the prefacing statement which gives acknowledgment.

Regulations concerning the form and preparation of the final manuscript, abstract, copyright, and so forth may be obtained from the Office of Graduate Studies or any other dean or department chairman offering the doctorate. Certain deadline dates, e.g., for submission of proposals, for submission of drafts, and for holding oral examinations, are found in each *Schedule of Classes*, and must be met if a candidate expects to receive his degree at the following May commencement.

The ABD Status

Candidates for the doctorate who have completed all the requirements for that degree except the dissertation (the so-called "All-But-Dissertation" status) and who entered a doctoral program without a master's degree may be awarded the appropriate master's degree from the University in the field in which their doctoral work was accomplished.

Maintaining Matriculation, Required Graduate Study Registration

The University requires students who have completed at least one course in a graduate degree program to register each year for the entire academic year until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars during the school year must register in the fall semester of each year under the designation .099 Maintaining Matriculation (no credit) and pay the required fee (non-refundable). A subsequent spring or summer registration does not invalidate the necessity for registering in the fall semester. A student who registers for courses or comprehensive examinations in the fall semester is considered a registered graduate student for the entire academic year and may have his I.D. card validated in the Office of the Registrar for the spring semester.

A student in this category is entitled to use the library of the University as well as the other Consortium libraries and to consult with members of the faculty. A graduate student who does not so register, indicating his continued interest in completing his degree objective, may be subject to delay in his work or may be denied the right to continue his studies.

In the fall semester a student may register for his comprehensive examinations, if appropriate to his academic progress, in lieu of maintaining matriculation, with the option of taking them at any approved designated time during the academic year. Forms are available for this purpose in the offices of the student's dean or department chairman. The appropriate fee is non-refundable. The signed receipt from the comprehensive examinations application will serve to validate his I.D. card in the Office of the Registrar in order that he may use the library facilities. (See further details regarding the comprehensive examinations application under that section in preceding pages.)

Statute of Limitations

Masters. All work for the master's degree must be completed within three years from the date of the first registration in a graduate degree program.

Doctorate. All work for the doctorate must be completed within five years from the date of the first registration as a doctoral student. However, the student is permitted seven years if he enters a doctoral program directly from a bachelor's degree.

A student who has not completed requirements in the time limits specified above must petition for re-admission if he wishes to continue.

Other Academic Regulations

Student Responsibility

The University faculty has formally adopted the following statement on student responsibility:

The American University expects that each student, as a mature member of the academic community, will adhere to the highest standards of personal integrity and good taste in his conduct and in his relationships with others.

University Liability

Faculty, students, staff and guests are responsible for their personal property, clothing and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

Class Attendance

The University considers class attendance a matter best left to the discretion of the individual classroom instructor. It is expected, however, that those faculty members who require a stated attendance policy will announce that policy at the first few class meetings each semester.

Veterans, and others receiving government benefits, are reminded that the paying agency may have specific attendance policies. Details of veterans benefits are available from the veterans' counselor.

Grading System

Grades used at The American University are:

<i>A</i> = excellent (3 points)	<i>F</i> = fail (— 1 point)
<i>B</i> = good (2 points)	<i>I</i> = incomplete
<i>C</i> = average (1 point)	<i>W</i> = withdrawal
<i>D</i> = poor (0 points)	<i>L</i> = auditor (no credit)
<i>P</i> = pass (0 points)	

"D" Grades

No credit is received by a graduate student for a "D" grade in a graduate level course.

Pass-Fail Courses

For undergraduate students the grade "P" indicates a quality of performance no less than "C" on a conventional grading scale.

For graduate students the "P" (normally given only for individual reading or research courses) indicates satisfactory completion of the work at the graduate level.

For both undergraduate and graduate students a grade of "P" does count toward graduation. For fuller description of the University's undergraduate pass-fail system see p. 31.

Removal of Incomplete

The grade "I" (incomplete) is given only to students who have made arrangements in advance with their instructor for the late completion of requirements for a course. A grade of "I" must be resolved to an "A," "B," "C," "D," "P," or "F" by the instructor upon completion or failure to complete the requirements of the course within the time allowed. A grade of "W" may not be given by the instructor to remove a grade of "I".

Quality Points and Quality Point Index

A grade point average for an undergraduate student at The American University is not the exact index of relative standing that it is in many institutions. Because of the extensive elective possibility of the pass-fail grading system, the grade average may include only a portion of the work attempted by a given student.

The cumulative grade average includes only those courses taken for conventional grades (A, B, C, D, F). Courses taken pass-fail are *not* included in the grade average, nor are grades of "Incomplete".

Only grades earned at The American University are computed in the cumulative grade index. Credits accepted on transfer from other institutions are included in the total number of undergraduate courses or graduate credit hours applicable to degree requirements, but are *not* included in the cumulative grade index.

Freshman Forgiveness Rule

Since the fall semester, 1963, a freshman student who, during the first two semesters of full-time study, receives a grade of "F" in a course may repeat the course within the calendar year thereafter or in the next two regular semesters in which the student is registered at The American University. No grades shall be removed from the record but when such a course is repeated only the grade earned the second time the course is taken shall be used in computation of the cumulative average for purposes of making decisions concerning probation, dismissal and required average for graduation.

A part-time freshman student who during his first twenty-four hours of study receives grades of "F" in courses may repeat these courses within the calendar year after the semester in which the grades of "F" were received with resulting cumulative index benefits stated above.

Students who are readmitted to the University before they have begun their third semester of college work, may within one calendar year after their re-admission, retake courses in which they received grades of "F" during the first two semesters at American University with the resulting cumulative index benefits stated above.

The foregoing regulations concerning repeated courses are not applicable to students who enter the University as transfer students, including those who enter as transfer students with freshman status (less than 30 hours), or to pass-fail courses.

Pass-Fail System—Old and New

Prior to the fall semester 1969 an undergraduate degree student was permitted to take on a Pass-Fail basis, four courses over his entire undergraduate program (not more than one course in a single fall or spring session) outside his major courses, his required related field courses, and his University requirements courses. Grades for these courses were recorded as satisfactory or unsatisfactory and did not affect the student's grade point index.

Effective in the fall semester 1969 undergraduate students may take up to 50% of their courses on a pass-fail basis. (With approval of a student's major department, even a greater percentage of courses may be taken Pass-Fail.)

Repetition of Courses

Whenever a course is repeated, each attempt, including final grade, is entered separately on the permanent academic record. Unless specifically indicated to the contrary, however, only one successful attempt of a course is counted toward fulfillment of graduation requirements.

Transfer of Credit

Credits accepted on transfer from another institution are included as "Advanced Standing" in the total number of credit hours applicable to degree requirements, but grades earned in such courses are not recorded on the permanent academic record at The American University, and are not used in computing the average needed for graduation. Only grades earned at The American University can be used for this determination.

Waiver

On the basis of tests and records the University may permit undergraduate degree students to waive all or part of the undergraduate University requirements in composition and reading.

Waiver examinations in foreign languages are given at the University during the course of the school year.

When students transfer courses which are essentially "continuation courses" the grade earned in the final semester of such courses will determine whether the entire sequence is creditable for University requirements purposes only. (This regulation shall not be interpreted as granting credit hours for courses transferred with a grade below "B" or "C" according to the institution from which the courses are transferred.)

Class Standing

The class to which an undergraduate student belongs is determined at the end of each academic year on the basis of the number of courses he has successfully completed, including those accepted as transfer credit, as follows:

0-7	Freshman	16-23	Junior
8-15	Sophomore	24-32	Senior

Independent Reading Courses and Study Projects and Non-Recurring Selected Topics Courses

An *Independent Reading Course* is defined as a course in which a student by pre-arrangement with an instructor reads a body of material with a minimum of formal instruction.

An *Independent Study Project* is defined as a course in which a student does research on a topic agreed upon by the student and the instructor, or engages in any mode of education deemed worthy of a student's efforts by the instructor responsible for the course. This may include teaching undergraduates on a guided basis, participation in educational programs off campus, travel under stipulated conditions, and so forth. In essence, this is a vehicle enabling the student to range as far as his interests and preparation carry him, subject to the approval of a faculty member, and his school or department.

A *Selected Topics (Non-Recurring) Course* is defined as any course or project involving a group of students on a non-recurring and/or experimental basis. This will include all courses which do not form a regular part of the curriculum of a department or school. In essence, this is a vehicle which will enable the faculty to offer courses on a single-time basis. It is also a vehicle for experimentation with the curriculum. It is distinguished from independent study projects in that it is open to groups of students under the same conditions by which a student registers for any course.

It is expected that registration in these courses will be at the regular registration period for a semester or summer session. It is possible, however, to register in any one of these courses until the beginning of the tenth week of a fall or spring semester, or third week of a summer session. A student desiring to begin an independent reading course or independent study project after the beginning of the tenth week of a semester may do so, but he will register for it at the beginning of the following semester, and it will be included in his course or hour load and tuition computation for that semester. These courses may be taken for quarter-course to double course credit (undergraduates) or for one to six semester hours credit (graduate students), the exact amount to be determined at the time of registration, and they must be completed by one calendar year from the date of registration for the course.

A student registering in an independent reading course or an independent study project must complete a special form for that purpose. This form is available in the various teaching unit offices, or at the Office of the Registrar. Approval of the department chairman is required on this form. In the event that the project duplicates a concurrently scheduled course, the approval of the dean of the school is also required.

Students registered in independent reading courses, or study projects, or non-recurring selected topics courses may be assigned conventional grades, or if they are undergraduate students, grades of pass or fail, according to agreement made at the time of registration. Once this agreement is made, a grade of pass or fail cannot be changed to a conventional grade, or vice versa.

With all three categories of courses, it is expected that the student will meet periodically with the instructor to review his progress. If the student is not in Washington, it is assumed that he will be in correspondence with the instructor concerning his progress. Normally, the instructor will be expected to be resident in Washington while he is supervising one of these projects.

Students permitted to enroll in the independent study courses listed below should enter on their registration cards the indicator number (1-75) of the department which will supervise their work, followed by the number of the particular course to which they are being admitted. Departments making use of a non-recurring selected topics course should list such courses using their departmental indicator number (1-75) followed by .396 or .696 and the title of the course.

Undergraduate level

- .390 Independent Reading Course (quarter-course to double course)
- .490 Independent Study Project (quarter-course to double course)
- .396 Selected Topics (non-recurring) (quarter course to double course)
- .398-.399 Departmental Honors Junior Year(course)
- .498-.499 Departmental Honors Senior Year (course)

Graduate level

- .099 Graduate Study (maintaining matriculation) (0 credit)
- .690 Independent Study Project (1-6 credits)
- .696 Selected Topics (non-recurring) (1-6 credits)

Declaration of Undergraduate Major

By the end of the sophomore year, if not before, each undergraduate student must choose an academic major. Formal declaration of the major is required on a form available from the deans', departmental, or Registrar's Office. Admission to the University does not automatically constitute admission to a major program (except in the School of Nursing). Acceptance is official only when specific approval has been received from the departmental/program chairman or his designate and is recorded by the registrar.

Changes in Major and in College or School

An undergraduate student who wishes to change from one college or school to another or one major to another must receive the permission of the dean and/or department chairman in charge of the program to which he wishes to transfer. This must be done on forms

available from the deans' offices or departmental offices and filed in the registrar's office. A change in college, school or major affiliation, when approved, does not become effective until the beginning of the next semester. It does not become effective if the student becomes subject to suspension or dismissal for failure to maintain University minimum standards.

Foreign Language Course Regulation

It is necessary to complete successfully the second semester of a beginning or intermediate foreign language course to receive academic credit for the first semester of the same course. This includes beginning and intermediate intensive language courses. The grade in the first semester of the course will be included in the academic average whether the second semester is successfully completed or not.

Undergraduate Students Enrolled for Graduate Credit

A senior student with the permission of his department chairman or dean may enroll in specifically approved graduate courses not required for his undergraduate program. Such courses must be designated as graduate credit at the time the student registers for them. Retroactive application of these credits for such purpose is not permitted. Credits for these courses may be applied toward meeting the course requirements for a graduate degree after the student has been awarded his undergraduate degree and provided he is then admitted to graduate standing.

Transfer Credit

Students who take courses in other colleges and universities for transfer credit to The American University must receive prior approval from their advisors and the dean of their college. This work usually is undertaken during the summer or as a part of an overseas study program (junior year abroad). Credit may be denied if the student does not receive prior permission.

Graduation Honors

Undergraduate students are eligible to graduate with honors provided they have completed at least one-half of the course work required for their degree in residence at The American University and have achieved the requisite grade average. The average is based on courses taken at the University only. Pass-fail courses will not be computed in the average. Undergraduate honors and the average required are as follows: *summa cum laude*—2.90 or higher; *magna cum laude*—2.75 to 2.89; *cum laude*—2.50 to 2.749.

The school of Business Administration awards graduation honors with the M.B.A. degree according to the following combination of cumulative grade average and grades of "Distinction" on the comprehensive examinations:

cum laude: 2.70 or higher and two distinctions;

magna cum laude: 2.80 or higher and three distinctions;

summa cum laude: 2.90 or higher and four distinctions.

Academic Probation and Dismissal

An undergraduate student who fails to maintain a cumulative average of "C" (1.00) is subject to dismissal. A first-year undergraduate student whose cumulative average falls below "C" may, under certain circumstances be continued on probation during a second year. In the determination of the number of hours completed, credits accepted by transfer from another institution are included, but in the determination of the cumulative average, only grades earned at The American University are counted.

Residence Requirements

The last 8 courses for any undergraduate degree must be completed in residence. An undergraduate student who transfers from another institution with advanced standing in the field of the major is required to do a minimum of 4 courses at the upper-level in the department of the college or school for which he has applied for graduation. More may be required by the department chairman or dean.

Completion of Degree Requirements and Commencement

The University confers degrees and issues diplomas at the end of the fall semester, the spring semester, and the second summer session. All students who expect to complete their degree requirements by the end of one of these periods must file an "Application for Degree"

available from the Office of the Registrar. The application deadline is subject to the dates established by the registrar and published in the *Schedule of Classes Bulletin*.

A formal commencement ceremony is held only at the end of the spring semester. Diplomas are mailed to students completing degrees at the end of fall or summer sessions unless the student requests in writing to the registrar that the diploma be held for the annual commencement ceremony at which the student expects to attend.

A student who, having applied for a degree for a given semester, fails to meet the requirements of the degree for that semester, *must re-apply for the degree* expected at a later date.

Regulations Subject to Change

The University reserves the right to change any of the regulations, requirements, or charges set forth in this or other published materials, and to cancel or change the course offerings, instructors, or schedules given in this announcement at any time. All students are expected to familiarize themselves with current regulations, requirements, and charges which apply to them.

General Information

Veterans' Information

All students planning to attend The American University under the provisions of a veterans' education program must submit an application to the Veterans' Administration well in advance of their registration date. The proper authorization must then be presented at the time of registration. Veterans receiving education benefits should be prepared to pay all expenses inasmuch as tuition payments are made directly to the veterans by the Veterans' Administration. Veterans who are unable to pay tuition in full at the time of registration may secure a partial deferment. (For more detailed information about the deferred payment plan consult the *Schedule of Classes Bulletin*). All veterans are advised to anticipate a delay of approximately two months before receiving their first payment. Veterans are provided further economic guidance by the veterans' counselor.

Motor Vehicles

Freshman, sophomore and junior students who reside on the campus are not allowed to bring motor vehicles which require licensing to The American University. Seniors and non-resident students who are allowed to bring motor vehicles to the campus must register them at the Office of Student Accounts, display a valid parking permit, and observe the University's parking and speed limit regulations.

Transcripts

A student may obtain a transcript of his academic record from the Office of the Registrar. Any student may order one transcript free of charge; there is a \$1 fee thereafter.

The University will not issue a transcript which reflects only a part of a student's record nor will it make copies of transcripts on file from other colleges and universities.

Transcripts will be released only on the written signature request or release of the student concerned.

Distribution of Grades

Grades will be mailed to the student at the earliest opportunity, normally within two weeks after the close of a semester. Grades are not released over the telephone nor in person by the Office of the Registrar.

Grades are not automatically mailed to parents of students. Those students who wish a parent copy mailed, however, may request that service in the Office of the Registrar. Only one parent copy per semester can be made available.

Consortium of Universities

In cooperation with Catholic University, Georgetown University, George Washington University and Howard University, The American University offers its qualified undergraduate and graduate degree students the opportunity to enroll for courses at these other universities. Such courses must be limited to those which are not offered by or which may not be immediately available at The American University. Credit earned in this program is considered residence credit.

Freshmen and sophomores are limited to *only* foreign language courses not offered at The American University.

To be eligible for this program, students must: (1) be fully admitted degree students, (2) be actively enrolled, (3) be in good academic standing, (4) be approved by the Registrar, and (5) be approved by their dean or department chairman who is responsible for securing approval at the cooperating university.

Forms to be used for this program are available in the Registrar's Office. Students must follow the registration procedures and pay the tuition rate of this University.

The program is available for fall, spring and summer sessions.

Summer Sessions

The summer term includes two five-week sessions in succession and an eight or ten-week evening session, depending on the courses offered.

Summer Admission

Sessions are open to students of The American University and to non-degree students (see Admission section for further information). Students currently enrolled in The American University (degree and non-degree) have the option of registering during the advance registration period or at the general registration. Students who are currently enrolled in another accredited institution and are in good standing may register by mail or at the general registration. Students not currently enrolled at another institution may register by mail or at the general registration. Forms and instructions for the mail registration are contained in the summer Sessions Bulletin. All completed forms and correspondence should be sent to the Director of Summer Sessions, The American University, Washington, D.C. 20016.

Summer Curriculum

Course offerings are designed with several audiences in mind. Special emphasis is placed on graduate courses for those interested in professional advancement in the areas of education, business, and government. A limited number of high school seniors may enroll in selected courses for college credit. Interested students must contact the Director of Summer Sessions for approval to register.

Summer Housing and Facilities

For information regarding housing and food services during the summer, students are advised to write to those offices directly (see the Correspondence Directory on page 5). Additional campus facilities available to summer students include a swimming pool, sauna bath, sports program, theatre, and musical events. All facilities on campus are air-conditioned. Students are allowed to bring automobiles on campus. There is no University registration of vehicles required in the summer, and parking is free. In addition to the facilities available at the University, students can take advantage of the easily accessible and varied attractions of the nation's capital. Information on transportation and on special summer events scheduled in the Washington area is available in the Office of Student Activities.

Continuing Education Service

The College of Continuing Education maintains through its day and evening programs academic advisory services, giving special attention to each student's individual needs.

Students are encouraged to seek academic counseling at any time during the semester. A full-time staff of counselors is readily available on the campus from 9:00 a.m. to 5:00 p.m. Monday through Friday. For the benefit of the evening student, limited counseling is offered from 5:00 to 8:30 p.m. Monday through Thursday.

Particular emphasis is given in the areas of determining academic load, assisting in course selection, and in determining the overall academic standing of the student.

Students are referred to other departments of the University as the need arises. Those considering graduate programs in other departments of the University are urged to consult these departments in advance of registration.

When appropriate, students are referred to the professional services of the University Counseling and Testing Center for assistance in choosing vocational and educational objectives, assessing educational strengths and skills, and for help with problems of personal and social adjustment.

Off-Campus Study

The College of Continuing Education arranges for course offerings at selected off-campus locations in the metropolitan Washington area.

Off-campus programs may include both graduate and undergraduate courses in all fields offered by the University and come under the same regulations and conditions as credit earned in courses meeting in University facilities on campus.

Although the scheduling of off-campus classes follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the on-campus semester dates in all details. The off-campus bulletin for each semester should be consulted for further information.

Registration

Procedure

Registration is conducted on the dates specified on the academic calendar published in the *Schedule of Classes Bulletin*. In order to register for courses a student must:

- (1) be admitted to the University or be approved for enrollment for non-degree study;
- (2) have a Social Security number;
- (3) secure approval of his program of study from his academic advisor;
- (4) complete the necessary registration forms and pay his tuition and fees, and
- (5) turn in all registration forms to registrar representatives.

More detailed information about registration will be found in the *Schedule of Classes*.

Advance Registration

All degree students, full-time or part-time, undergraduate or graduate, are eligible to register in advance for fall and spring semesters. No financial obligations are included in Advance Registration. Payment of tuition and fees must be completed by dates announced for each semester in the *Schedule of Classes Bulletin*. Full details on Advance Registration are issued each semester by the Office of the Registrar.

For summer sessions an advance registration is available to those students, degree or non-degree, who wish to take advantage of it. Details are available from the Director of Special Sessions. See also page 35.

Late Registration

Late registration (subject to a \$10 fee) is permitted during the period provided on the academic calendar. No student will be allowed to register after these dates.

Auditors

A student who wishes to attend a class but who does not wish to participate, take examinations, receive a final grade, or receive credit for the course may register as an auditor. Tuition and fees for auditors are the same as those for credit registered students.

Non-Degree Student Registration

If a student does not wish to pursue a degree program but desires to register for particular courses for which he has the necessary qualifications, he may be considered for admission to the College of Continuing Education as a non-degree student. He receives full academic credits for courses taken (unless he registers as an auditor, in which case he is not responsible for attendance or examinations and does not receive a grade or academic credit.)

Changes in Registration

Withdrawals

A student may withdraw from a course from the beginning of a semester until the end of the tenth week of classes without a signature of instructor or advisor. From the beginning of the eleventh week of classes, a course withdrawal will be allowed only with the written approval of the dean of his school or the dean's designate. Consultation with and approval of the instructor may be required. A course withdrawal will be indicated by the grade **W**. No grade of **W** can be given in any session after the last class meeting for that session.

An undergraduate student who is withdrawing completely from the University must secure the signature of his dean and a signature from the Office of Student Life on the "Course Registration Change" form and then file this form in the Office of the Registrar.

Students who cease to attend classes but do not file an official withdrawal with the Office of the Registrar may be given final grades of "F." Discontinuation of attendance at class or notification to the instructor does not constitute an official withdrawal.

Refunds or cancellations of tuition are pro-rated and are calculated from the date the "Course Registration Change" form is filed in the Office of the Registrar *and* in the Office of Student Accounts. Requests for cancellation of room charges and meal tickets must be processed through the residence halls Business Management Office and will be subject to standard University regulations.

Students who discontinue class attendance but who do not officially withdraw during the cancellation period will be responsible for payment of the full amount of the applicable tuition and fees.

Adds

Courses may be added through the second week of classes of a semester. From the beginning of the third week of classes, no course adds or section changes will be allowed.

Foreign Students

Foreign students must have *any* change in registration approved by the Foreign Student Advisor or his designate.

Special University Programs

Institutes

An institute is a specialized and intensive academic offering of the University designed primarily for persons engaged in professional fields. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments and research projects.

The following is a partial listing of institutes offered by the University. For other institutes and institute descriptions, see "Institutes" in the course section of this catalog.

- Chemistry cooperative work-study program at research laboratories
- Education workshop in counseling the disadvantaged
- Research and development management institute
- Theoretical and practical training in geneological research
- Business finance for high school teachers
- Real estate appraisal.

Intersession

Intersession, coordinated by the College of Continuing Education at The American University, provides an opportunity for innovation and experimentation during the academic year. Scheduled during the period between fall and spring semesters, no usual courses are offered. Educational programs during intersession are designed for students wishing to undertake study and reading courses, workshops, travel, and similar projects which may be difficult to schedule during a regular semester.

Government Workshop Abroad

The School of Government and Public Administration sponsors a comparative government workshop abroad to Eastern and Western European countries as part of its summer program. Students may earn academic credit by participating in a field study of foreign governments.

Washington Semester Programs

The Washington Semester

Established in 1947 and operated by the School of Government and Public Administration, the Washington Semester Program is an intercollegiate honors program for the study of American government in action. Approximately two hundred students from over one hundred colleges across the country attend each year for a full semester in a course of study which includes numerous meetings in the field with public officials, lobbyists, political figures,

and others active in the American national government. Individual guided research and elective courses complete the student's program.

The Washington Urban Semester

Patterned on the Washington Semester, the Washington Urban Semester was established in 1969 as part of the program in urban affairs of the School of Government and Public Administration and, since the spring of 1970, has served both the student body of The American University and the member colleges of the Washington Semester Program. Emphasis is placed not on urban politics alone, but also on policies on regional agencies, states, and the national government on urban matters and the politics of intergovernmental decision making in this field.

The Washington International Semester

Beginning with the Fall of 1970, the School of International Service has established a Washington International Semester which, in a cooperative arrangement with the Washington Semester Program, is also open to students from member colleges. Employing a similar format, it provides its students with an opportunity to observe and study the manifold governmental, international and private activities which contribute to the United States' posture in world affairs.

Center for Liberal Studies

Associated with the College of Arts and Sciences, the Center sponsors an Artist-in-Residence program from one of the fine arts (theater, art, and music) and also presents forums and seminars at which experts lecture and discuss relevant academic issues at the University. These sessions open to the Washington community at no charge. In 1969-1970, the Center held symposiums on "The uses and misuses of the human subject in social and behavioral science research: a question of ethics" and "The impossible silence: a playwrights forum."

Center for the Study of Private Enterprise

The Center, with the cooperation of the Secretary of Commerce, sponsors three lectures in business-government relations each year in addition to the Annual Washington Conference on Business-Government Relations.

Hurst R. Anderson Forensic Society

The Hurst R. Anderson Forensic Society annually sponsors the Congressional Cub Invitational Debating Tournament which is attended by debate teams from schools and colleges from across the nation.

Special Lectures

Each year the Student Association and certain classes and clubs bring to the campus, as part of their regular programs, outstanding leaders in government and public administration for lectures and discussions with interested students. Senators, Representatives, staff members of Congress, administrative officers, political party officials and other public affairs leaders have met with students in recent years.

The Department of Philosophy and Religion also sponsors guest lecturers who include outstanding spokesmen in the area of philosophy and religion. This department sponsors the annual "Faith and Freedom" lectures which bring distinguished scholars to the campus to discuss some aspect of man's spiritual heritage relative to its implication for the concept of freedom. Lectures on religion are also sponsored by the chaplains and the Inter-Religious Club Council.

College of Continuing Education

There are a variety of programs sponsored for groups with special interests and needs by the College of Continuing Education.

Business Council for International Understanding

In 1959 the Business Council for International Understanding selected American University as its Washington base for a program to help prepare business executives for international assignments made by their companies. The BCIU/AU Program provides its participants a better understanding of cross cultural differences; of the social, political and economic makeup of the country and area to which they are proceeding; and of the tech-

niques which will make them more effective representatives of their respective companies and better interpreters of the United States. Through the facilities and resources available from the various Schools of The American University itself, the federal government, international organizations, and foreign embassies, the participants have access to private consultation on questions of special interest to them. Also, for those who wish it, intensive foreign language study is available.

For additional program information, write to the Office of the Director, BCIU/AU Program, College of Continuing Education, The American University, Washington, D.C. 20016.

Communication Workshops

The Urban Communication Workshops offer basic training in journalism and broadcasting to inner city high school juniors who have had no opportunity for such instruction in their schools. A counseling program is included in the workshops to provide follow-up and to direct students into colleges and training programs and placement in occupations.

The English Language Institute

The English Language Institute offers courses and special programs in English as a foreign language and English as a second dialect. The Institute seeks to serve the University and the Washington community in developing innovative programs suited to the particular needs of foreign students and native speakers of English whose dialect is other than standard.

Labor Studies Center

The Labor Studies Center is responsible for developing labor education programs at the university level which will serve trade unionists and their organizations in the greater Washington metropolitan area and research programs dealing with problems facing unions, their members, and labor-management processes. The Center also provides consultative and research assistance to union organizations.

Neighborhood Campus Centers

The Neighborhood Campus Centers utilize the resources of The American University to help the residents of the community help themselves. At present, a health and nutrition, and a legal counseling and education program are under way. Pre-school for young children of parents in the program is provided.

Off-Campus and In-Service Programs

The College of Continuing Education administers programs offering credit and non-credit courses at various locations throughout the Washington metropolitan area. The various programs are designed to meet the educational needs of students who wish to attend the University on a part-time basis at a center near their home or place of work.

Project AU/Pride

An undergraduate certificate program for inner-city residents recruited by Pride, Inc., and other community organizations is also sponsored by the College of Continuing Education. The curriculum features courses relevant to the educational needs of students recruited from inner-city neighborhoods. These courses are open to students of The American University with the permission of the College of Continuing Education.

Student Services

Office for Student Life

The Office for Student Life offers a program of services to students and faculty which complements and assists the University's formal academic program. These services are implemented through the Placement Office, Counseling Center, Student Activities Office, Chaplain's Office, Health Center, International Student and Faculty Exchange Office, Housing Office and Financial Aid Office.

Placement Center

The Placement Center assists students and graduates of the University interested in obtaining part-time, temporary, and summer employment, and in seeking career employment to start after graduation. For the student needing part-time or temporary employment, the

Center offers information and assistance relative to a fairly wide variety of job openings on the campus and in the Washington metropolitan area. The Center also has listings of many room and board situations for students and listings of job openings for part-time students needing a full-time job. The Placement Center provides counseling, guidance and other assistance in the important aspects of career job seeking. The Center maintains for student use reference materials pertaining to career employment opportunities in a broad range of employer organizations. It provides a referral service whereby credentials for applicants for career employment, particularly teaching candidates, are referred to interested employers on request.

Through an annual campus interview program, the Center offers an opportunity to graduating students for interviews with representatives of numerous business and industrial firms, government agencies and school systems seeking career employees.

Counseling Center

The aim of the University Counseling Center is to assist students to better understand themselves, to deal more effectively with important decisions, and to resolve problems. An extensive program of professional psychological services is provided.

Counseling is on an individual or group basis depending upon what is most suitable. Help is available in vocational or educational planning, in resolving problems of a personal or social nature, and for pre-marital and marital concerns. In addition, there are encounter groups to enhance personal development. Other services include various testing programs, an occupational information library, and a reading and study skills laboratory to improve educational skills.

There is no additional charge to full-time students for Counseling Center services. All contacts are confidential.

Academic Advisement—Under the direction of the Associate Dean of the College of Arts and Sciences, freshman students are assigned in small numbers to faculty members for guidance in planning their academic programs. They remain with these advisers until they have decided upon a major area of study at which time they are assigned to advisers in their specialized fields. Students who wish help in selection of career rather than planning of coursework are advised to consult with the Counseling Center in addition to their academic adviser.

Financial Aid

See page 22.

Residence Facilities and Dining Services

See page 24.

International Student and Faculty Exchange

The Office of International Student and Faculty Exchange provides specialized services geared to the needs of foreign nationals and to U.S. students contemplating study outside the United States. These services include the general counseling and guidance of foreign students, coordination of U.S. and foreign faculty exchange, and guidance for U.S. student study abroad. Graduate level internships and individual reading or research courses are also provided for selected graduate and undergraduate students interested in international educational and cultural exchange vocations.

Chaplains

Chaplains at The American University see their ministry to the campus in a broad context. Representing a wide variety of denominations and faith groups, they attempt not only to provide traditional chaplains' services of worship and personal counseling, but also to work in concert with other campus groups in making the University more responsive to the human needs of its members.

The Abraham S. Kay Spiritual Life Center houses the offices of the chaplains, together with the Chapel, a lounge, a library, and meeting rooms. Protestant, Catholic, Jewish, Christian Science, and occasionally other religious services are regularly scheduled here, as are other campus functions of various kinds. Worship tends to be both contemporary in style and involved with the life of the campus and the world.

There is an open and welcome atmosphere at the Center, where students feel free to come and talk with one another, or with a chaplain, about problems, or plans, or ideas. There

is opportunity to work with others of different religious backgrounds in a very democratic way. To be involved here is to add significantly to the meaning of one's experience at the University.

Worship Services

Each week during the fall and spring semesters (except academic holidays) worship services are held at the Kay Spiritual Life Center.

Sunday:	Episcopal Communion	9:00 am
	Roman Catholic Mass	12:45 pm
	Protestant Worship	5:00 pm
Thursday:		11:15 am
	Christian Science	6:00 pm
	Contemporary Protestant Worship	10:15 pm
Friday:	Jewish Sabbath Services	7:30 pm

In addition, Roman Catholic Mass is celebrated Tuesday and Thursday at 5:00 pm and confessions heard Tuesday at 7:30 pm.

Student Health Center

The Student Health Center is available to all full-time undergraduate students. This service is for diagnostic purposes and the care of minor illnesses only; the infirmary has no facilities for bed patients. Students whose health problems are more complex will be referred to nearby Sibley Memorial Hospital or another hospital of their choice for treatment.

Dispensary Hours: 7:30 am to 10 pm
Monday thru Friday

9 am to 3 pm
Saturday

Closed on Sunday

Doctor's Clinic Hours: 8 am to 11:30 am
Monday thru Friday

11 am to 1:30 pm
Saturday

Holiday Hours: 9 am to 5 pm
Monday thru Friday

Closed Saturday and Sunday

Student Insurance Plan—All full-time students may elect to participate in the Student Accident and Sickness Insurance Plan at the time of registration. Detailed information concerning this plan is available in the Student Health Center and the Student Life Office, Mary Graydon Center.

Student Activities

The Student Activities Center assists both student groups and individual students in the facilitation of learning and personal growth beyond the classroom. The staff members specialize in activities counseling, advising and coordination of organizations, providing leadership training, and personal development programs. Students in conjunction with the Activities staff and the administration work together in developing programs related to student life.

As a result of the University commitment to the awareness of student needs, a broad spectrum of experience relevant to the current life goals and needs of students is provided by a trained, professional staff.

Student Association

The Student Association, an organization of all full-time undergraduates enrolled in all of the schools and colleges of the University, coordinates functions of campus groups and social life. The legislative and policy-forming functions of the Student Association are performed by the Student Senate. This group is composed of officers and representatives of the student body.

Other student government groups are: Residence Hall Association, Inter-Fraternity Council, Panhellenic Council, Inter-Club Council, Judicial System, All-Kay Community and the Social Action Council.

Judicial System

The Judicial System, structured on the fundamentals of due process, is designed for the hearing and resolving of complaints against students and student groups. Underlying the entire program is a deep regard for discipline as a constructive element of education.

All-Kay Community

IRC coordinates the activities of the various religious groups and plans general religious activities.

Social Action Council

The Social Action Council is dedicated to education, participation and change. Focusing upon the problems of the city, SAC sponsors campus-wide training programs and speakers on urban affairs. SAC is involved in such projects as the Washington Area Study Project, D.C. General Hospital Program, Tutoring Program, service fraternities, a mental health program and the Organization of African and Afro-American Students at The American University (OASATAU).

Athletic Program

The University participates in an intercollegiate athletic program that includes soccer, cross country, wrestling, basketball, swimming, tennis, golf, baseball, and track. There is intramural competition in touch football, basketball, softball, track, swimming, bowling, and volley ball. In addition, individual competition is available in tennis, checkers, golf, horseshoes, chess, badminton, table tennis, free throw, shooting and archery. The University will inaugurate its first season of club football in 1970 which includes both local and East coast club football teams.

Debate

The intercollegiate forensics program is coordinated by the Hurst R. Anderson Forensic Society. Members of the HRAFS participate in an extensive schedule of intercollegiate events including debate tournaments and contests in individual events.

Dramatics

The American University Players present several classic and contemporary productions throughout the year and also schedule play readings, one-act plays, and dramatic television productions. Through work in various phases of campus theatre, points may be acquired to meet the requirements of active membership in the Green Room Players Club.

Music

Musical groups on campus include The American University Chorale, The American University Orchestra, and The American University Singers. Each of these groups presents concerts during the year. The Singers schedule concert tours in addition to their campus programs. Qualified students may register in any of these musical organizations for credit.

Political Organizations

There are a variety of political organizations on campus which encourage participation in local and national political campaigns and sponsor lectures by members of Congress, journalists, and representatives of different political parties. Organizations include Young Democrats, Young Republicans, Students for a Democratic Society and Young Americans For Freedom, Student Mobilization Committee, and Young Socialist Alliance.

Professional and Honorary Societies

At American University students can strive for election to both professional and service honoraries. Professional honoraries are established in the fields of biology, debate, dramatics, education, German language, graduate work, history, journalism, leadership, marketing, mathematics, music, political science, speech arts, and transportation. The service honoraries are: Omicron Delta Kappa (men), Diadem (women), Mortar Board (women), and Tassels (women). There is also a chapter of the National University Honor Society, Phi Kappa Phi, on campus.

Publications and Broadcasting

Students publish a weekly newspaper, the *Eagle*; a literary magazine, *The American*; and a yearbook, the *Talon*. The student radio stations WAMU-AM and WAMU-FM broadcast daily.

Service Organizations

There are three service organizations whose University chapters are nationally affiliated. Alpha Phi Omega and Omicron Kappa for college men, provide wide fellowship programs with many leadership and service opportunities. As the women's service sororities, Gamma Sigma Sigma performs a variety of services for the University and community, including assistance in the Settlement Houses in the Washington area and Kappa Phi strives to include its members in worthwhile projects.

Social Organizations

The University currently has chapters of thirteen nationally affiliated sororities and fraternities. The six sororities on campus are: Alpha Chi Omega, Alpha Epsilon Phi, Delta Gamma, Kappa Delta, Phi Mu, and Phi Sigma Sigma. The eight fraternities include: Alpha Epsilon Phi, Alpha Tau Omega, Alpha Sigma Phi, Phi Sigma Kappa, Tau Epsilon Phi, and Zeta Beta Tau.

Other Services

Office of Student Accounts

Following admission to the University, students handle all financial transactions with the University, including the cashing of checks, through the Office of Student Accounts.

Mail Service

Mail service is provided Mon.-Fri., 10 am-5 pm, and Sat., 10 am-2 pm. The University maintains a U.S. Post Office contract station on the campus where off-campus students may rent mail boxes for a small fee. Mail boxes are furnished to resident students in each dormitory without charge. Post Office hours: Mon.-Fri., 9:30 am-4 pm.

Campus Store

The campus bookstore carries all required textbooks, a large selection of non-required books, all necessary paper supplies and stationery, college sportswear, college jewelry and gifts, phonograph records, magazines and newspapers, film and toiletry items.

Academic Advisement

Under the direction of the Associate Dean of the College of Arts and Sciences, freshman students are assigned in small numbers to faculty members for guidance in planning their academic programs. They remain with these advisers until they have decided upon a major area of study at which time they are assigned to advisers in their specialized fields. Students who wish help in selection of career rather than planning of coursework are advised to consult with the Counseling Center in addition to their academic adviser. The office of their college dean can also be helpful.

Degree Programs

Following are undergraduate and graduate degree requirements listed in alphabetical sequence.

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 Philosophy and Religion, 93
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 South and Southeast Asian Studies, Center for
 Speech Arts,
 Statistics,
 Technology and Administration, see Continuing Education, 134

Courses are listed beginning on page 168.

College of Arts and Sciences Foreign Language Requirement

The college-level foreign language courses previously required of all undergraduates in the College of Arts and Sciences have been abolished for students enrolling as freshmen in September 1970. However, the completion of two years of high school-level foreign language courses is a requisite for admission.

All students enrolled in the college prior to 1970, students transferring to the college from other schools within the University, students transferring from other colleges and universities, and students being readmitted, must study a language through its intermediate year.

Freshmen entering in 1970 who have not had the required high school language courses shall have to make up the deficiencies through language study in the college on a non-credit basis.

Waiver opportunity is available to students who can demonstrate proficiency through the intermediate level of a foreign language.

Students should consult the dean or chairman of their respective departments for further information.

College of Arts and Sciences

As a part of the process of providing a quality educational experience for the student, the College of Arts and Sciences undergoes yearly revisions of its undergraduate and graduate academic programs and requirements. In keeping with the investigation cooperatively shared by faculty and students, the information contained in this section of the catalog may be incomplete or in the process of revision. All students are advised to share their academic intent with a faculty advisor, department chairman or the dean's office to ascertain what educational experiences are available.

Undergraduate Degrees

The college's undergraduate instructional efforts are not confined to the transmission of a prescribed quantity of fixed knowledge for all, but attempt to discover and foster individual human development, challenge intellectual capacities, and assist the student in relating these to the world of today, and more importantly, tomorrow.

Emphasizing personal uniqueness, the college offers the opportunity to pursue a traditional department major, or of developing, with faculty advice, a program compatible with the student's interests and intellectual needs. Whether electing a specific major or the interdisciplinary approach, each student is encouraged to select courses that insure the breadth which has been a hallmark of a liberal education.

Undergraduate Degree Programs

Bachelor of Arts

American Studies
Anthropology
Art
Communication
Economics
Education—Elementary
English
History
Interdisciplinary Studies
Language (French, German,
Russian, Spanish)
Language and Area Studies
Mathematics
Music
Philosophy
Physics
Psychology
Religion
Sociology

Speech Arts
Statistics

Bachelor of Fine Arts

Bachelor of Music

Bachelor of Music Education

Bachelor of Science

Applied Mathematics
Biology
Chemistry
Distributed Sciences
Health, Physical Education and Recreation
Interdisciplinary Studies
Mathematics
Medical Technology
Physics
Speech Arts
Statistics

Associate in Arts Degree

Some high school graduates do not, or for some reason cannot, remain in college for four years, yet desire to complete a degree program. This fact, along with the development of the junior college, has contributed to the popularity of the Associate in Arts degree which may be awarded after successful completion of two years' study or its equivalent. The college offers the Associate in Arts degree in general studies only.

To receive the associate degree the student must meet a two-course English requirement, satisfy the language proficiency, and accrue a total of 16 courses with a cumulative average of "C" or better. The last eight courses must be completed in residence.

Academic Counseling

According to his interests, vocational plans and academic maturity, the undergraduate will plan each semester's program with a faculty counselor. First semester freshmen are counseled by curriculum literature mailed during the summer months. Their response to this inquiry

provides a course program which is discussed with an assigned advisor during the orientation period. Transfer students receive briefing at a mass assembly at the beginning of each semester, and are then directed for program planning to the department to which they were admitted.

Degree Requirements

Minimum graduation requirement for all bachelor's degrees is 32 courses. The recent adoption of the course system enables the student to intensify his efforts in a four course semester registration. Except for the two English and Composition units (see page 31 for placement and waiver), each student is free to select course work relevant to his personal goals.

All undergraduate degree students must provide evidence of the satisfactory completion of at least two years of study of a foreign language in high school, or its equivalent, as an admission requirement (see page 46). Admitted students lacking this proficiency will be required to gain such experience in non-credit course work taken during the first two years. Foreign students whose native tongue is not English and who have certified their proficiency in English to the satisfaction of the Office of Admissions do not have to be concerned with this requirement.

Departmental Affiliation

THE MAJOR

By the end of the sophomore year, if not before, the student must choose a field of concentration, an academic major. It is in this field that he pursues study in depth and synthesizes his academic knowledge. Major programs are described under departmental sections of the college.

SPECIAL INTERESTS

Students interested in the natural sciences, mathematics, music, art, speech arts and physical education need to take specific courses in their freshman year if they intend to complete a degree in eight semesters. Such students should declare their interests as soon as possible and seek explicit counseling from the appropriate department.

MAJOR DECLARATION

Admission to the University does not automatically constitute admission to a major program. Acceptance is official when specific approval has been received from the departmental chairman or his designate and is recorded by the registrar.

Students who wish to change their major choice from one department to another, or apply from another school for a College of Arts and Sciences major, must apply as described above.

CAS Pre-Professional Programs

Pre-professional curricula are offered in dentistry, medicine, law, physical therapy, medical technology, social work, secondary education, and theology. A student interested in one of these fields should consult the associate dean for academic counseling (Gray Hall) before his initial registration. An advisor representing the special field of interest will be assigned. The programs are:

PHYSICAL THERAPY

In physical therapy, since upper-level courses are not offered at the University, it is expected that the student will transfer to a school having the required curriculum at the end of the sophomore year.

MEDICAL TECHNOLOGY

In medical technology, the work of the senior year is completed in a local medical laboratory or hospital.

PRE-THEOLOGY

Many pre-theological students are attracted to The American University. The presence of the Wesley Theological Seminary on the campus, along with the offerings of the Department of Philosophy and Religion and the religious activities under the direction of the University Chaplain, provide excellent conditions for pre-professional studies in religion.

PRE-MEDICAL

The Association of American Medical Colleges (AAMC) publishes annually an *Admissions Requirement Handbook* on pre-medical programs and the requirements for admission to AAMC-approved medical schools. The pre-medical student is urged to study a copy of this

publication, which may be ordered through the Association of American Medical Colleges, Department 1B, 2520 Ridge Avenue, Evanston, Illinois.

Medical schools normally require a minimum of three years of undergraduate studies and strongly recommend completion of the bachelor's degree. There is no inclination to prescribe the undergraduate major in view of an interest in students with varied intellectual concerns and backgrounds.

While there is some variation of practice, medical schools in general require the following undergraduate studies: two years of chemistry, one year of biology, one year of physics, and one year of English. In some instances one year of mathematics and two years of a modern foreign language also are required. It is emphasized that these are minimum requirements and, again, the student is urged to consult the *Admissions Requirement Handbook* (available in the offices of the Departments of Biology and Chemistry) and his advisor.

PRE-DENTISTRY

The basic pre-medical pattern applies to pre-dental students as well as to others interested in veterinary medicine, medical technology, and other related fields.

It is usual for medical and dental schools to require a medical aptitude examination administered in the prospective student's junior year in college. The applicant is responsible for arranging for this examination, and inquiries should be addressed to Medical College Admission Test, The Psychological Corporation, 304 East 45th Street, New York, New York.

A Pre-Medical Advisory Committee has been established in the College of Arts and Sciences. The purpose of this committee is to assist in filing for the Medical Aptitude Test, in securing letters of recommendation, etc. It is recommended that students interested in a career in medicine consult a member of the committee early in their undergraduate program.

Interdisciplinary Major

This program permits CAS graduate and undergraduate students to complete an interdisciplinary major according to their needs, capacities and interests. A program is formulated with the advice of and approval by at least three fulltime faculty members from disciplines relevant to the student's defined emphasis, and is subject to the approval of the Dean and the review of the University Interdisciplinary Studies Committee.

The initiative in all such degrees is with the student. It is the student who is responsible for determining the central concept around which the program is to center. With the three faculty members, he determines the requirements of his concentration and identifies a sequence of course work to fulfill his program needs. The concept should be formulated in a written statement no later than the junior year, or within the first semester of study as a graduate student. An interdisciplinary major can also be taken as a second major.

The University Interdisciplinary Studies Committee sets all requirements and procedures for this program. Interested students may consult the Dean's Office for assistance.

Undergraduate Honors Program

A sequence of special seminar courses is available to students who qualify for admission under the University Honors Board standards. The board reviews all freshman applicants and selects those qualified to begin the program in the first year in Honors English. Students who show potential at a later date may apply to the Board for admission to the colloquia offered for sophomores, juniors and seniors.

In addition to the colloquia, many departments offer to exceptional students the opportunity to pursue honors work in the major. An interested upperclassman should consult his departmental faculty.

Graduate Degrees

The graduate programs of the College of Arts and Sciences are directed toward the development of highly competent scientists, sensitive teachers, creative and critical scholars. To achieve this objective the college provides an academic setting and climate favorable to the free interchange of ideas and the disciplined exploration and testing of the most seminal of these notions. The primary function of this collaborative interchange among mature and maturing scholars is to enhance the latter's understanding of, and sensitivity to, the spirit and styles of intellectual innovation and scholarly inquiry. The student is encouraged to identify research or intellectual problems of his own choosing and actively to seek their solution. These self-defined problems and the creative inquiry they generate are the ultimate influence for the fashioning of the individual student's program of graduate study in the college.

Graduate Degree Programs

Master of Arts

Anthropology
 Art History
 Church Music
 Communication
 Economics
 Education
 English
 History
 Interdisciplinary Studies
 Language—(French, German,
 Russian, Spanish)
 Language and Area Studies
 Linguistics
 Mathematics
 Music
 Philosophy
 Physics
 Psychology
 Religion
 Speech Arts
 Sociology
 Statistics

Master of Education

Master of Fine Arts

Master of Science

Biology
 Chemistry
 Physics

Master of Science in Science Teaching

Doctor of Education

Doctor of Philosophy

Anthropology
 Chemistry
 Economics
 Education
 History
 Interdisciplinary Studies
 Mathematics
 Philosophy
 Physics
 Psychology
 Sociology
 Statistics

Admissions—See page 17 and the departmental description.

Degree Requirements—See page 25 and the departmental descriptions.

Academic Counseling

Programs of graduate study usually consist of a combination of courses and research activities, some selected by the student to develop his individual interests and some presented by the department concerned. Graduate counselors on college policy are available in the dean's office, but specific counseling about disciplinary requirements is given by the department. It is recommended that at the beginning of his graduate career each student determine the details of the advisory system of his department.

American Studies

Correspondence Directory: CHARLES McLAUGHLIN, *Chairman*, Committee on American Studies.

Fields of Study

Interdepartmental program with course work taken in art, anthropology, communication, English, education, economics, international Service, speech arts, music, philosophy, religion, history, public administration, government.

Undergraduate Degree

Bachelor of Arts

The program in American studies is available through registration in the College of Arts and Sciences. Students interested in this program should seek the advice of the chairman of the American Studies Committee.

Admission to the Major

A student who has earned an average of 1.50 in two courses related to the major qualifies for admission. Consult the American Studies Committee for additional qualifications.

University Requirements

See page 24.

Language Requirement — See page 46.

Major Requirements

Students majoring in American Studies will have to complete a flexible set of requirements consisting of: (a) certain specific courses designed for the program; (b) a concentration of American studies courses within a single department; (c) a concentration of related *non-American studies* within a single department; (d) electives from American studies courses. A list of the many courses at the University which are designated American studies courses is available. The list is altered as new courses evolve and as old courses are discontinued. The exact requirements for this flexible major will be worked out with the chairman of the program according to guidelines established by the American Studies Committee and the Interdisciplinary Studies Committee.

Anthropology

Correspondence Directory: RUTH LANDMAN, *Chairman*.

Fields of Study

History of anthropological method and theory, ethnology and social anthropology, Ethnography, linguistics, archeology (Old and New World), physical anthropology, culture area analysis, ethnohistory, culture change.

Full-time Faculty

Professor: Gordon MacGregor, Harvey C. Moore, A. L. Vilakazi

Associate Professor: John James Bodine, George L. Harris, Ruth Landman, Charles W. McNett, Jr.

Assistant Professor: Geoffrey L. Burkhart, Gary Hume, William L. Leap

Undergraduate Degree

Bachelor of Arts

Admission to the Major

A student who has earned at least a 1.00 average and better than a C average in two or more department courses is eligible for admission.

University Requirements

See page 24.

Language Requirement

Minimum CAS Requirement. See page 46.

Students planning to continue with graduate work will be encouraged to acquire reading skill in one or more modern foreign language.

Department Requirements for Majors

Introductory Courses

3.201 Introduction to Cultural Anthropology

3.202 Biocultural Evolution

Courses at .300-or-Above Level

3.331 Variation in Man

3.332 Old World Prehistory or 3.333 New World Prehistory

3.335 Ethnographic Survey or 3.336 Social Structure

3.337 Anthropological Linguistics I

3.543 Analytical Methods: Quantitative and Qualitative

3.545 Theory in Anthropology

and three electives in anthropology, at the .300 level or above, to be chosen in consultation with departmental advisor.

Related Courses

65.200 Introduction to Sociology, 57.200 General Psychology (and a broad foundation in one related subject matter field).

Two semesters of approved laboratory science are recommended.

Departmental Honors

Consult the department for details.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Students should consult the department office for specifics on graduate program.

Master of Arts

Course Requirements

Minimum of 30 hours of approved graduate work including at least twelve hours on the .600 or .700 level, of which normally six hours is 3.797 Master's Thesis Seminar. Designated core courses in theory and method mandatory in first year of graduate work.

Comprehensive Examinations

Two examinations including one in the general history of anthropological theory and method; one in a specialized field of anthropology or an approved related field. A preliminary oral examination in general anthropology may be required after 12 hours of graduate work.

Other Requirements

Thesis and oral defense of thesis.

Graduate Comprehensive Fields*Core Field*

3.006 History of Anthropological Method and Theory

Specialized Fields

3.016 Ethnology and Social
Anthropology

3.017 Ethnography (a specified area)

3.018 Linguistics

3.019 Archeology (Old World)

3.020 Archeology (New World)

3.021 Physical Anthropology

3.022 Cultural Area Analysis (with
emphasis on specified area)

3.023 Language and Cultural Analysis

3.024 Ethnohistory

3.025 Culture Change

Doctor of Philosophy

Admission—See page 17. Two or more letters of reference are recommended.

Course Requirements—See page 26.

Minimum of 72 hours of approved graduate work is required, including 3.799 Doctoral Dissertation Seminar (may be repeated for up to 24 hours). Students entering the Ph.D. program with M.A. degrees in anthropology earned elsewhere must complete 30 hours of course work in residence plus 12 hours of dissertation credit. Students registered at the University and completing the requirements of a master's degree except for the master's thesis may substitute six hours of course work or research projects and proceed to doctoral work if their performance is of enough distinction in the minds of the faculty to warrant such a decision.

Comprehensive Examinations

(1) An examination on general knowledge of anthropology is required after 24 hours of graduate work for students who enter the Ph.D. program without an M.A. in anthropology. For students with an M.A. in anthropology from other institutions this examination will be taken during the first year of graduate work.

(2) A minimum of four comprehensive examinations, including 3.006 and 3.025 and two approved elective fields. Scheduling of examinations is by approval of the departmental

chairman but all examinations must be taken within one year of completion of residence requirements.

(3) A dissertation and an oral defense thereof.

Other Requirements

A working knowledge of two languages useful as tools in library and/or field research or an acceptable substitute for one language is required. Statistical or computer analysis would provide such a substitute. Choice is to be evaluated and approved by the department in terms of the nature of the student's research interests and the needs for a career in anthropology. Admission to candidacy for the Doctor of Philosophy is contingent upon a passing performance on four comprehensive examinations and fulfillment of the tool requirements specified above.

Art

Correspondence Directory: BEN L. SUMMERFORD, *Chairman*.

Fields of Study

Fine art, design, interior design, art history, art education.

Full-Time Faculty

Professor: Robert F. Gates, Helene McKinsey Herzbrun, Ben L. Summerford

Associate Professor: Lothar Brabanski, Robert A. D'Arista, Irene W. Eno, Robert Shaffer, Carol Ravenal, Theodore Turak

Assistant Professor: Mary D. Garrard, Marjorie Hirano, Luciano Penay

Undergraduate Degrees

Bachelor of Arts, Bachelor of Fine Arts

Admission to the Majors

The department counsels freshmen and transfers. Faculty approval, satisfactory completion of four departmental courses, is necessary for formal admission to the major leading to a Bachelor of Arts Degree.

Upon completion of three semesters of studio work, students may apply for admission to a program leading to the degree Bachelor of Fine Arts. This program is designed to meet the needs of the exceptional student who desires an intensive studio experience within the context of the liberal arts. Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview.

University Requirements——See page 24.

Language Requirement——See page 46. Art history majors are urged to acquire intermediate proficiency in French or German.

Departmental Requirements——Bachelor of Arts

Major Courses

Students majoring in art complete one of the following five programs of study (these are minimal requirements).

FINE ARTS—12 studio courses (painting, drawing, ceramics, sculpture and printmaking) with at least 2 courses in three of these five studio fields.

ART EDUCATION—10 courses with at least 1 course in each of five studio fields (painting, drawing, sculpture, ceramics, and printmaking or etching) and at least 4 courses in one of these studio fields. 2 courses, 5.370 Crafts for the Art Teacher and 5.371 Methods of Teaching Art, are taken in conjunction with 21.445 Student Teaching: Secondary Schools. See Education Department.

DESIGN—10 design courses including 5.348-9 Design Techniques I & II 5.350-1 Design Fundamentals I & II, and 2 studio courses.

Upon completion of three semesters of studio work, students may apply for admission to a program leading to the degree Bachelor of Fine Arts. This program is designed to meet the needs of the exceptional student who desires an intensive studio experience within the

context of the liberal arts. Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview.

INTERIOR DESIGN—6 interior design courses, 4 design courses including 5.350-1 Design Fundamentals I & II, and 5.348-9 Design Techniques I & II, and 2 studio courses.

ART HISTORY—10 art history courses including 7.100-1 Survey of Art I & II and 7.400 Seminar for Art History majors.

Related Courses

All art majors (in any of the five programs listed above) are required to take 4 art history courses including 7.100-1 Survey of Art I & II. Those in the interior design program are to include 7.102-3 Survey of Decorative Arts I & II in their art history requirements.

Majors in the art education program are required to take 4 art history courses, 21.300 Foundations of Education, and 21.445 Student Teaching: Secondary Schools.

All art history majors are required to take 2 studio courses and 4 courses in related humanities or social sciences at the 300 level or above.

Electives

To complete 32 courses.

Departmental Requirements—Bachelor of Fine Arts

Students are required to have 18 studio courses with at least 7 courses in one of three areas of concentration (painting, sculpture and graphics), plus 4 art history courses.

Electives

To complete a minimum of 32 courses.

These remaining 10 courses must be taken from other departments in the College of Arts and Sciences.

Graduate Degrees

Master of Fine Arts

PAINTING OR SCULPTURE

Admission Requirements

A minimum average of B in the undergraduate major plus departmental approval of applicant's portfolio of art work is required.

Course Requirements

Requirements include a minimum of 36 credit hours of approved graduate work, including: 6 credit hours in 5.797 Master's Thesis Seminar, 21 credit hours in studio chosen from 5.520-1; 5.533; 5.560; 5.700; 5.792; 5.793; and 5.794; and 9 credit hours in graduate art history.

Written Comprehensive Examinations

Two are required, including one in theory and techniques of painting or sculpture, and one in a specialized field of art history.

Core Fields in fine arts (choose one):

5.001 Theory and Techniques of Painting

5.002 Theory and Techniques of Sculpture

Specialized Fields in art history (choose one from the list below under Master of Arts degree):

Thesis

Execution of an original work or works of art defended by written critical analysis of problem undertaken.

Master of Arts

ART HISTORY

Admission Requirements

A minimum grade average of B in undergraduate major is required. If undergraduate major was not in art history, students admitted to program will be required to have completed or complete 18 hours in art history in addition to 30 hours required for degree. Reading knowl-

edge of French, German or Italian must be certified during first semester (see tools of research requirement, page 26).

Course Requirements

A minimum of 30 credit hours of approved graduate course work (combined total of at least 48 credit hours of undergraduate and graduate art history) including 6 credit hours in graduate research seminars (7.792 or 7.793).

Written Comprehensive Examinations

Two, including one examination in core field and one in specialized field.

Core Field

5.003 History of Western Art (Greek to Modern).

Specialized Fields:

5.009 Medieval Art

5.010 Renaissance and Baroque Art

5.011 Modern Art

5.015 Sculpture: Renaissance through Modern

5.018 Painting: Renaissance and Baroque

5.019 Painting: Rococo through Modern

5.020 Art in the United States

Thesis Substitution

Satisfactory completion of a substantial research paper in each of two master's research seminars is required to complete the degree.

Biology

Correspondence Directory: FALCONER SMITH, *Chairman*.

Fields of Study

General biology, microbiology, plant sciences, developmental biology (embryology or genetics), physiology, ecology (environmental science)

Full-time Faculty

Professor: Edward J. Breyere, Sumner O. Burhoe (Emeritus), Falconer Smith

Associate Professor: Richard R. Anderson

Assistant Professor: William Bonta, Richard Fox, Edward Pierce, Ishwar S. Pradip, Robert L. Strautz

Instructor: Russell Peterson, Donald Spoon

Undergraduate Degrees

Bachelor of Science, Bachelor of Science emphasis

Medical Technology* *

Admission to the Major

Any student who has been admitted to the College of Arts and Sciences may make a major application.

University Requirements——See page 24.

Language Requirement——See page 46.

Department Requirements

Major Courses

9.110 Environmental Biology

9.332 Cell Physiology

9.350 Independent Biological Studies

9.356 Genetics

9.357 Genetics Laboratory

* * Students interested in medical technology should consult the department for curriculum requirements other than those described in this catalog

9.358 Developmental Biology

Elective Courses (one from each area)*Area 1*

9.321 Plant Physiology

9.304 Comparative Plant Anatomy

Area 2

9.325 Vertebrate Physiology

9.305 Comparative Vertebrate Anatomy

Area 3

9.340 Microbiology

9.532 Parasitology

Area 4

9.100 Human Biology

9.350 Independent biological studies

9.523 Bioecology

9.524 Plant Taxonomy

9.531 Animal Histology

9.537 Invertebrate Biology

9.535 Endocrinology

9.541 Immunology

9.543 Virology

9.570 General Entomology

Related Courses

15.310, 15.311, 15.320, 15.321 Organic Chemistry I and II

51.210, 51.222, 51.211, 51.223 Elements of General Physics I and II

Tool Courses

41.111 Analytical Geometry and Introduction to Calculus and

69.202 Basic Statistics

(Biology majors choosing education as a field of study are encouraged to enroll in the distributed science major. See page 82.)

Electives

To complete a minimum of 32 courses.

Graduate Degree

Master of Science

Course Requirements

Minimum of 32 hours of approved graduate work, and 9.797 Master's Thesis Research (6) and 2 hours of Graduate Seminar, 9.700.

Written Comprehensive Examinations

Two, 9.006 General Biology and one selected from the fields listed below.

Other Requirements

Thesis and oral defense of thesis and advancement to candidacy.

Other Graduate Degrees

See page 82 for information concerning requirements for the Master of Science in Science Teaching.

Graduate Comprehensive Examination Fields

9.001 Microbiology

9.002 Plant Sciences

9.003 Developmental Biology (Embryology or Genetics)

9.004 Physiology

9.006 General Biology

Chemistry

Correspondence Directory: LEO SCHUBERT, *Chairman*

Fields of Study

General chemistry, biochemistry, organic chemistry, inorganic and nuclear chemistry, physical chemistry, analytical chemistry.

Full-time Faculty

Professor:

Mary H. Aldridge, Robert T. Foley, Matthew Norton, Frederick A. H. Rice, Leo Schubert

Associate Professor:

Ann Baker Braun, Doris E. Hadary, Luis A. Veguilla-Berdecia, Paul F. Waters

Assistant Professor:

Peter J. Andrulus, Frederick Carson

Undergraduate Degree

Bachelor of Science

Admission to the Major

The department counsels freshmen and transfers. A 1.00 average is necessary for admission to the major.

University Requirements——See page 24.

Language

Competence in a modern foreign language, particularly German or Russian, through the intermediate level is urged. See page 46.

Departmental Requirements

Major Courses: 15.120 and 15.130 General Chemistry I and II

15.121 and 15.131 General Chemistry I and II Laboratory or

15.200 Chemical Principles and 15.210 Qualitative Inorganic

Analysis and 15.211 Qualitative Inorganic Analysis Laboratory

15.310 and 15.320 Organic Chemistry I and II

15.311 and 15.321 Organic Chemistry I and II Laboratory

15.350 Quantitative Analysis

15.351 Quantitative Analysis Laboratory

15.410 and 15.420 Physical Chemistry I and II

15.411 and 15.421 Physical Chemistry I and II Laboratory

15.460 Instrumental Quantitative Analysis

15.461 Instrumental Quantitative Analysis Laboratory

15.550 Advanced Inorganic Analysis

15.522 Qualitative Organic Analysis or 15.560 and 15.561 Biochemistry I and II

Related Courses

51.120 and 51.121 Introduction to Physics I and II

51.122 and 51.123 General Physics Laboratory I and II

Tool Courses

41.111, 41.222, 41.223, Calculus I-III

Electives

To complete a minimum of 32 courses the student is urged to consider 55.533 Computer Programming; Earth Sciences; and Biology as electives.

Cooperative Work-Study Program

A cooperative work-study program is part of the program of the Chemistry Department. Work at the research level is available through several cooperating research organizations. The

undergraduate student is expected to work full-time for six months and study at the University full-time for five months. A degree may be earned in five years or less. The income received through this program is adequate for self-support through the B.S. degree.

Other Undergraduate Degrees

See page 82 for information concerning requirements for the Bachelor of Science with major in distributed sciences.

Graduate Degrees

Master of Science

Admission Requirements

A B.S. in chemistry with a 1.70 cumulative index in chemistry from an accredited college and approval of The American University Chemistry Department faculty.

All students must take four placement examinations in the several fields of chemistry on a published date shortly before general registration. Any placement examination failed must be retaken and passed. See also page 17.

Course Requirements

A minimum of 30 hours of approved graduate work, including 15.797 Master's Thesis Seminar (6) and 15.700 Seminar in Chemistry (1). Before this degree is awarded, the student must have completed:

- (1) 15.600 and 15.601 Advanced Physical Chemistry I, II (6) or
15.520 and 15.521 Advanced Organic Chemistry I, II (6),
- (2) 15.551 Topics in Inorganic Chemistry (3) or
15.560 and 15.561 Biochemistry (6).

The entire course of study must constitute a unified program approved by the student's advisor and the chairman of the department. Before the M.S. is awarded the student is expected to have completed either in graduate study or in an undergraduate program:

- 15.550 Advanced Inorganic Chemistry (3) and
- 15.522 Qualitative Organic Analysis (3).

Advancement to Candidacy

The student is expected to file for advancement to candidacy upon completion of 12 graduate credits.

Cumulative (Comprehensive) Examinations

Cumulative examinations are administered by the department. Each field in chemistry will schedule four such examinations each year. A minimum of six cumulative examinations must be taken. Of these, four must be in the major field and two in a minor field. The student should consult with the department about details of the cumulative examination requirements. Fields for the examinations are:

- 15.001 Biochemistry
- 15.002 Organic Chemistry
- 15.003 Inorganic and Nuclear Chemistry
- 15.004 Physical Chemistry
- 15.005 Analytical Chemistry

Thesis Option

The student must present a thesis based on laboratory or theoretical research. The thesis must be of publishable quality. The student choosing the thesis option must defend his thesis successfully before his committee.

Non-Thesis Option

The student must present a scholarly paper based on a critical review of the literature. The paper must be of publishable quality. To demonstrate the student's ability to carry on original and independent research, the student choosing the non-thesis option must submit two avenues of investigation for research and defend these, as well as his paper, successfully before his committee.

Oral Examination

An oral defense of the thesis is required. Each student must defend successfully his research work or research ideas (non-thesis option) and his thesis before his committee. The oral is open to the public.

Tool of Research

The student is required to pass an examination or its equivalent in one of the following:

Russian	French	Statistics
German	Computer Programming	

Other Graduate Degrees

See page 82 for information concerning requirements for the Master of Science in Science Teaching.

In addition, M.S. in Chemistry (Information Science) is available through this department in cooperation with the Scientific and Technical Information System Program of the Center for Technology and Administration in the College of Continuing Education.

Cumulative Examination Fields

- 15.001 Biochemistry
- 15.002 Organic Chemistry
- 15.003 Inorganic and Nuclear Chemistry
- 15.004 Physical Chemistry
- 15.005 Analytical Chemistry

(See description under Ph.D. following.)

Doctor of Philosophy**Admission Requirements**

Either—

1. A 2.00 cumulative index in chemistry from an A.C.S. accredited college and an acceptable grade on the Graduate Record Examination and approval by The American University Chemistry Department staff, or
2. An M.S. or M.A. in Chemistry and approval by The American University Chemistry Department staff.

All students admitted directly from a bachelor's program must take four placement examinations on a published date approximately one week before general registration. Students admitted with an M.S. need not take placement examinations.

Course Requirements

Approximately 50 hours of course credits with the remainder in 15.799, "Doctoral Dissertation Seminar" and 15.700, "Seminar in Chemistry" to total 72 credits.

All students must complete the following core courses or submit reasonable approved substitutes:

- 15.520-15.521 Advanced Organic Chemistry I and II (6)
- 15.551 Topics in Inorganic Chemistry (3)
- 15.560-15.561 Biochemistry I and II (8)
- 15.600-15.601 Advanced Physical Chemistry I and II (6)

Advancement to Candidacy

The student admitted directly from a bachelor's program is expected to file for advancement to candidacy upon completion of 18 credits. The student admitted from another university with a Master of Science degree is expected to file for advancement to candidacy upon completing nine semester hours.

Cumulative Examinations

Cumulative examinations will be administered by the department.

The fields for the cumulative examinations are to be selected from:

- 15.001 Biochemistry
- 15.002 Organic Chemistry
- 15.003 Inorganic and Nuclear Chemistry
- 15.004 Physical Chemistry
- 15.005 Analytical Chemistry

Dissertation

The student is expected to have selected his research preceptor during or before his second year. The research should demand approximately one year of full-time effort.

Oral Examination

An oral defense of dissertation will be required. During this examination, the student must present at least one original research idea. He is expected to defend his research idea and develop a plan for pursuing it.

Should the research preceptor deem it appropriate, a manuscript suitable for publication in a journal will be required.

Tools of Research

The student is required to pass examinations or their equivalent in two of the following:

Russian	French	Statistics
German	Computer Programming	

The student is required to maintain continuous registration. See the section in this *catalog* which refers to the **Maintaining Matriculation** page 29 under Required Graduate Study Registration.

Communication

Correspondence Directory: ROBERT O. BLANCHARD, *Chairman*.

Fields of Study

Broadcasting, broadcast journalism, communication research, film, international communication, print journalism, public relations, visual communication.

Full-time Faculty

Professor: Horace D. Crawford

Associate Professor: Robert O. Blanchard, Edward L. Bliss, Jr., Donald T. Moore, Hamid Mowlana, Lewis W. Wolfson

Assistant Professor: James John Onder, Jack E. Orwant, Jack C. Seigle, Joanne Yamauchi

Instructor: Glenn Hamden

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The department counsels freshmen and transfers. For formal admission to the major, a student must have a 1.50 average.

University Requirements—See page 24.

Language Requirement—See page 46.

Department Requirements

Major Courses: 8 (maximum)

The student is required to take two core courses, two general communication courses and four courses in one sequence.

Note: .300 level or above courses are open to juniors and seniors only.

Core Courses

17.100 Introduction to Mass Communication

17.101 Writing for Mass Communication

General Communication: Two courses, one from each set.

Set 1

17.381 Development of Broadcasting

17.500 Communication History

17.588 History of Motion Pictures

Set 2

- 17.501 Legal Aspects of Communication
- 17.503 Mass Media and Society
- 17.507 Freedom of Information
- 17.531 International Communication Systems

Sequences: After completion of core courses, the student, in his junior year, selects *one* of the following sequences:

PRINT JOURNALISM*Magazine Concentration:*

- 17.320 Reporting I
- 17.325 Feature Article Writing
- 17.342 Magazine Journalism
- 17.343 Photography

Newspaper Concentration:

- 17.320 Reporting I
- 17.322 Editorial Policies and Methods I
- 17.325 Feature Article Writing
- 17.343 Photography

BROADCASTING-FILM*Broadcasting Concentration:*

- 17.333 Fundamentals of Radio-TV-Film
 - 17.381 Development of Broadcasting
- Two of the following:
- 17.382 Writing for Broadcast
 - 17.583 Film Production and Direction
 - 17.383 Radio Production and Programming
 - 17.584 Television Production and Direction

Film Concentration: (Offered in cooperation with the Department of English. See Department of Communication)

- 17.343 Photography
 - 17.558 History of Motion Pictures
 - 23.396 A Critical Approach to the Cinema
 - 17.583 Film Production and Direction
 - 17.590 Independent Study
 - 23.510 Creative Writing I *or*
 - 23.511 Creative Writing II *and*
- One elective in radio, television or film production

BROADCAST-JOURNALISM

- 17.320 Reporting I
- 17.333 Fundamentals of Radio-TV-Film
- 17.385 Broadcast Journalism I
- 17.528 Broadcast Journalism II

Qualified students in this concentration may receive departmental permission to participate in the production of documentary films.

Related Courses

The student is required to take two history courses, one course in both economics and international service or government, and one course in either psychology, sociology or anthropology.

In addition, the student is required to complete three courses (.300 level or above) in one of the above fields.

Each student is directed toward a broad arts and sciences background and second major equivalent.

Interdisciplinary Communication Degree**Visual Communication**

A program in visual communication, conducted through the University Office of Interdisciplinary Studies, is offered jointly by the Department of Communication and the Department of Art (Consult the Department of Communication).

Film

A program in film, conducted through the Office of Interdisciplinary Studies, is offered jointly by the Department of Communication and the Department of English (Consult the Department of Communication).

Tools

Typing ability is required of all majors.

Majors are expected to gain practical communication experience in the nation's capital through Department of Communication on or off-campus internships, work-study, or summer employment. After approval of advisor, see department chairman for placement.

Electives

To complete a minimum of 32 courses.

Graduate Degree

Master of Arts in Communication

Admission Requirements

A minimum undergraduate cumulative index of 1.50 in overall study and 1.75 in the major index are required for admission (using the 3-point scale). Previous communication academic or professional experience is not required. However, evidence of professional commitment and direction, related to one of the graduate sequences, is required of all applicants. Those without previous experience may be asked to schedule an interview with the faculty before admission. (For pre-requisites, see "Other Requirements" below.)

In general, admission is for the fall semester. Entry into the graduate program spring or summer session, while possible in some cases, will make for scheduling and timetable difficulties.

Washington area residents, employed full or part-time, are required to be interviewed by and receive approval of the Director of Communication Career Development, Department of Communication, before applying. Part-time students will not be admitted unless they can attend required courses during the day. A special evening program, including pre-application counseling, is available through the College of Continuing Education to some nondegree students and applicants for part-time study. (Write the Director of Career Development, Department of Communication.)

Note to all potential applicants: Address all initial inquiries to the Chairman, Department of Communication. Send application forms, transcripts and other completed forms to the Director of Graduate Admissions of The American University. Address all inquiries on the status of your application to both the Graduate Admissions Office and the Department of Communication Chairman.

Requirements

Requirements include 33 hours of approved graduate work in *General Communication* (12), and in one of the *Graduate Communication Sequences* (12); graduate study and research in an approved related area (9); and one written comprehensive examination. In some cases, a thesis may be approved in lieu of study and research in an approved related area. In that case, three additional hours in research and methodology or relevant preparatory course is required in addition to six hours of thesis.

General Communication (12 hours):

Required for all M.A. candidates are Seminar in Public Affairs (17.710), Methodology of Communication Research (17.760), and two of the following:

- 17.500 Communication History
- 17.501 Legal Aspects of Communication
- 17.503 Mass Media and Society
- 17.507 Freedom of Information
- 17.531 International Communication Systems

Graduate Communication Sequences (12 hours)

One of the following professional sequences:

PRINT JOURNALISM

Reporting of Public Affairs (17.724), Government News Reporting (17.536), Seminar in Journalism (17.720), and one of the following:

Advanced Feature Article Writing (17.526)

Editorial Interpretation (17.521)

Editorial Policies and Methods II (17.520)

Publication Layout and Design (17.532)

Independent reporting project, internship or independent study

BROADCAST JOURNALISM

Reporting of Public Affairs (17.724), Broadcast Journalism II (17.528), Seminar in Journalism (17.720), and one of the following:

Television Production and Direction (17.584)

Film Production and Direction (17.583)

Television Programming (17.588)

Independent documentary project, internship or independent study

BROADCASTING-FILM

Two from each of the following two sets of courses as approved by student's advisor:

(1) Seminar in Broadcasting-Film (17.589), History of Motion Pictures (17.558), Television Programming (17.588)

(2) Film Production and Direction (17.583), Television Production (17.584), Independent production projects (see "Independent Graduate Study" at end of course listings below).

PUBLIC RELATIONS

Reporting of Public Affairs (17.724), Principles of Public Relations (17.540), Public Relations and Government (17.544), and Seminar in Public Relations (17.740).

Related Area of Study

The student will take courses (9 hours) in an area related to Communication that has been approved by the department. Students can arrange programs in such fields as urban affairs, politics and government, and international affairs, but other areas of the social sciences or humanities also may be suitable. They also may consider study in international communication or communication research (see below).

Other Requirements

Students without previous journalistic writing and editing experience who are admitted into the print journalism, broadcast journalism or public relations sequences may be required to take Writing for Mass Communication (17.101) in the summer or no later than fall semester for incoming graduate students. Students in the broadcasting-film sequence without previous broadcasting experience may be required to take Development of Broadcasting Film (17.381) and Fundamentals of Radio-TV-Film (17.333). A grade average of B (2.00) or better must be maintained during all graduate work counting toward the degree. The student is required to maintain continuous full-time registration. (See the section in this *catalog* which refers to the *Maintaining Matriculation*)

Comprehensive Examinations

In general communication, the examination fields include the legal, historical, social, political, comparative and research aspects of communication.

Timetable

The full-time student should complete all requirements for the M.A. in three semesters. All students must complete requirements for the M.A. program within three calendar years after entering the program. No extensions or readmissions are approved. The part-time student should not apply for the M.A. program in communication until he has successfully completed 12 or 15 hours of graduate study under the Career Development Program, College of Continuing Education.

Communication Research

Graduate students enrolled in any of the communication M.A. sequences can choose communication research as their related area of study.

In addition, the Department of Communication and the Department of Speech Arts offer a joint program in communication research. (See department chairman.)

M.A. in Communication Research

An M.A. in Communication Research can be arranged through the Office of Interdisciplinary Studies by combining study in the Department of Communication and the Department of Speech Arts with a concentration in sociology, psychology, and computer science. (See department chairman.)

Graduate Courses

- 17.601 Experimental Research in Communication
- 17.760 Methodology of Communication Research
- 67.580 Communication in Small Groups

International Communication

Graduate students enrolled in any of the communication M.A. sequences can choose international communication as their related area of study.

In addition, the Department of Communication and School of International Service offer a joint graduate program in international communication open to majors in each unit.

M.A. in International Communication

An M.A. in International Communication can be arranged through the Office of Interdisciplinary Studies by combining study in the Department of Communication and the School of International Service with a required concentration in either social psychology, cultural anthropology, linguistics, economic development, sociology, political science, or area studies.

M.A. and Ph.D. comprehensives in international communication, offered by the School of International Service, are conducted by international communication faculty.

Graduate Courses

- 17.531 International Communication Systems
- 33.539 Foundations of International Communication
- 33.633 Psychological and Cultural Bases of International Politics
- 33.638 Information and Persuasion in Cross-Cultural Contacts
- 33.650 International Political Communication
- 33.676 Political Communication and Foreign Policy: Systems of Support

Economics

Correspondence Directory: CHARLES K. WILBER, *Chairman*

Fields of Study

Price and Income, Theory Contemporary Economic Theory, History of Economic Thought, Economic History of Europe, Economic History of the United States, History of Economic Development, Economic Growth and Development, Economic Development Policy (not open to students in Dept. of Economics), Labor Economics, International Economics, International Economic Policy (not open to students in Dept. of Economics), Comparative Economic Systems and Soviet-type Economics, Monetary Economics, Public Finance and Fiscal Policy, Mathematical Economics, Econometrics, Quantitative Method in Economics (open only to M.A. candidates), Urban Economics

Full-Time Faculty

Professor. W. Donald Bowles, Gary Fromm, Branko Horvat, Warren S. Hunsberger, E. J. Mishan, Cynthia T. Morris, Frank M. Tamagna, Vito Tanzi, Albert Waterston, James H. Weaver, Charles K. Wilber

Associate Professor: Nancy S. Barrett

Assistant Professor: Richard D. Morgenstern, Ronald Muller, Larry Sawers, Howard M. Wachtel

Instructor: W. Michael Bailey, Richard M. Simon

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The department counsels freshmen and transfer students. Formal admission to the major requires a 1.00 average and approval of the departmental undergraduate advisor.

University Requirements—See page 24.

Language Requirement——See page 46.

Department Requirements

REQUIRED COURSES

- 19.100 Introduction to Economics
- 19.300 Price Theory and Its History
- 19.301 Income Theory and Its History
- 19.314 Junior/Senior Seminar

Elective Courses

Three courses chosen from departmental offerings.

QUANTITATIVE COURSES

19.310 Introduction to Econometrics or 69.202 Basic Statistics is required. Students are urged to take 19.305 Introduction to Quantitative Economics.

RELATED COURSES

Four courses at the .300 level or above, selected from the following fields, with not more than 3 courses in any one: anthropology, business administration, education, government, history, international relations, mathematics, philosophy, psychology, sociology.

Note: Grade of "C" or better is required in all major, tool and related courses. Students planning to continue on to graduate work in economics are advised to take mathematics as a related field.

Electives

To complete a minimum of 32 courses.

In addition to the seven required departmental courses, a student may select additional economics courses including those at the .500 level provided he has the prerequisite.

A student should not use his electives entirely in his own field. For some purposes 10.306 and 10.307, Accounting I and II are useful electives.

Business and Economics Majors

A student in the Department of Economics may earn a B.S.B.A. degree with a major in business and economics by taking the required courses in the Department of Economics and the following courses in the School of Business Administration.

- 10.306 Introductory Accounting I
- 10.307 Introductory Accounting II
- 10.201 Business Law I
- 10.465 Business Finance I
- 11.300 Marketing I
- 10.481 Principles of Production
- 10.456 Principles of Management

Satisfactory completion of this major enables a student to earn a M.B.A. or M.A. degree in one year's full time study.

Master of Arts

Admission——See page 17.

The Graduate Record Examination is recommended. In general an overall grade point average of B (2.00) in the last two years of undergraduate work is required.

Course Requirements

Minimum of 30 hours of approved graduate work is required. This must include Price Theory 19.500 and Income Theory 19.501. Methodology I, 69.514 or 19.522 Econometrics I is required. Either 19.305 Introduction to Quantitative Economics or 19.521 Quantitative Economics Analysis is required. Students must either complete a Master's thesis, two non-thesis seminars, or two independent research projects.

Doctor of Philosophy

Admission——See page 17.

The Graduate Record Examination is recommended. In general an overall grade point average of B (2.00) in the last two years of undergraduate work and a B+ (2.50) in previous graduate work are required.

Course Requirements

Minimum of 72 hours of approved graduate work is required, including 19.799 Doctoral Dissertation Seminar (up to 24 hours). Students entering the Ph.D. program with M.A. degrees earned elsewhere must complete 30 hours of graduate work in residence plus 12 hours of dissertation credit. Students are not required to take any specific courses or to complete any specified number of formal courses.

Advisors

1) There will be a general advisor for all incoming Ph.D. students. Each student, in collaboration with the general Ph.D. advisor, will choose an advisor during the course of his first year's work in the program. His advisor will have primary responsibility for the student's program.

2) The student can change advisors whenever he changes field of interest or wishes to change, providing he can find a faculty member willing to accept him. To remain in the Ph.D. program the student must maintain the minimum standard required by the University and must retain the sponsorship of an advisor.

3) At the end of each academic year, the advisor, in consultation with other faculty members, will enter in the department files a written evaluation of the student's academic progress. Any other interested faculty member may also submit an evaluation. Students changing advisors near evaluation time will receive evaluations from both faculty members. A copy of each evaluation will be shown to the student in person by the advisor, then a copy will be entered in the student's file and a copy mailed to the student. These evaluations are confidential and are for use only by the staff and faculty of the Department of Economics. They are not to be used as a form of recommendation and cannot be used outside the department without the faculty member's expressed approval.

Tool of Research

The tool of research requirement may be fulfilled by completing the following courses with an average grade of B or better.

19.521 Mathematical Economic Analysis

19.522 Econometrics I

19.523 Econometrics II or some other tool which may aid the graduate student in further research into economic problems (e.g. in a language or an alternative research methodology such as the philosophy of science or the philosophy of history).

Alternatively, the student may fulfill the tool of research requirement by passing an exam administered by the Department of Economics.

Independent Research

The Ph.D. student, in order to further familiarize himself with research techniques and methods and the practical problems involved in research, will be required to have at least 6 hours of individual research. The individual research project would require the willingness of a faculty member to approve the proposed research and to serve as advisor to the student who wishes to pursue some research in which he is interested (but which may be peripheral to his course work).

Comprehensive Examinations

(1) An oral exam will be required before comprehensives are taken (between 24 and 36 hours). This exam will be at the introductory level, and the exam will be used as both a screening and an advising device. It may also be used in determining the eligibility of a student to waive one of his comprehensives (see below).

(2) Five comprehensive exams will be required.

a) Two written exams: one in Price Theory and Its History and one in Income Theory and Its History.

b) Three exams (written or oral at the student's option): one in History of Economic Development and two in electives (one of which may be outside the economics department).

One elective field may be satisfied by satisfactory completion of 6 hours (better than B) of course work in the field and by the approval of the faculty.

The comprehensive exams must be taken within one year of completion of residence requirements. The student has the option of taking all five exams at one comprehensive examination period, or he may choose to split up his comprehensive schedule by taking the theory comprehensives during one examination period and the History of Economic Development

ment and the two elective comprehensives during the next examination period the following semester.

(3) An oral examination will also be required on the Ph.D. dissertation.

Honors

The Simon Naidel prize of \$50 is awarded annually to the graduate student in Economics who has written the most outstanding comprehensive examination, as judged by the faculty of the Department of Economics.

The Frank Tamagna prize of \$100 is awarded annually to an outstanding graduate or undergraduate student in monetary economics as judged by those professors teaching monetary economics.

The Frits Karl Mann Fund is a loan fund for graduate or undergraduate students in economics. The loan fund is administered by the chairman of the department.

Education

Correspondence Directory: RALPH WHITFIELD, *Acting Chairman*.

Fields of Study

Undergraduate: Elementary, early childhood, and secondary education.

Graduate: Educational history and philosophy, psychological foundations of education, school administration, special education (emotionally disturbed and learning disabilities), school counseling, student personnel services in higher education, supervision and curriculum development (general), reading education, educational research, higher education, and religious education.

Full-time Faculty

Professor: Chalmer A. Gross, Edith H. Grotberg, Paul D. Leedy, Nicholas Long, Ralph Whitfield, Sterling D. Whitley, Bernard A. Hodinko

Associate Professor: Robert J. Chinnis, Dennis D. Miller, Thomas Landers, Franz Haber

Assistant Professor: Juanita Fletcher, Craig Messersmith, Bernice Miller, David Sansbury

Instructor: Robert P. Jardin, Miriam Platig, Robert Kirk, John A. Smith

Undergraduate Degree

Bachelor of Arts

Admission to the Major

Students must meet the University admission requirements. See page 13.

In addition, students must meet the standards required by the Department of Education.

Admission to The American University does not automatically admit one to a program in teacher education.

Continuous Selection Criteria

1. Anyone desiring admission must enroll in the first of a sequence of professional education courses, 21.300 Foundations of Education. Enrollment in 21.300 precedes formal application to a teacher education program. Elementary and early childhood education majors normally enroll in 21.300 during the sophomore year, while those planning to teach in the secondary schools normally enroll in 21.300 during the junior year or first semester of the senior year at the latest. A grade point average of 1.30 is a prerequisite to enrollment in 21.300 Foundations of Education.

2. Prior to enrollment in either 21.350 Elementary and Early Childhood Methods or 21.340 Secondary Education Methods, the student submits his application for Admission to a Teacher Education Program to the department. Application forms are available at the Department of Education. Admission requirements at this stage consist of:

- Cumulative grade point average of 1.50 or better.
- Recommendation by Foundations instructor.
- For secondary students, recommendation by his/her academic advisor.

3. To remain in a teacher education program, a student must maintain a cumulative grade point average of 1.50 or better.

Elementary and Early Childhood Education Programs

The following program is required for elementary and early childhood education majors in order to meet most state certification requirements. Even though the professional education aspects of the program have been carefully designed, graduation does not assure one a position as a fully certified teacher. The American University does *not* license one to teach in any given state; such certificates are issued only by a state governmental agency.

The student is responsible for selecting courses which will enable him to obtain a certificate in the state of his choice. Certification requirements should be examined no later than the beginning of the student's sophomore year. The elementary education program is approved by the National Council for Accreditation of Teacher Education (NCATE). States recognizing such accreditation guarantee certification to graduates of NCATE approved programs even though the graduate may not specifically meet all state requirements. Consult a departmental advisor regarding certification matters.

University Requirements—See page 24.

Language Requirement—See page 46.

Departmental Requirements

DISTRIBUTION

Humanities Electives

Any three (3) course units in the humanities must be taken. These may be chosen from literature, art, music, philosophy, religion, and speech.

Natural Sciences and/or Mathematics Electives

Any three (3) course units in the natural sciences and/or mathematics must be taken.

Social Sciences Electives

Any three (3) course units in the social sciences must be taken. These may be chosen from anthropology, economics, history, government, international studies, psychology, and sociology.

Elective Field for Academic Concentration

An academic concentration (other than education courses) of at least six (6) courses is required. Courses in this area may overlap with any one of the above humanities, natural sciences and/or mathematics, or social sciences depending on one's academic concentration. The six courses may be taken in any one department or school (such as 6 units of economics or 6 units of sociology) or interdisciplinary combinations such as 6 course units distributed in the behavioral sciences, the humanities, the natural sciences/mathematics concentration, and others may be arranged to satisfy specific certification needs.

PROFESSIONAL CORE

Students majoring in elementary and early childhood education are required to complete the following courses:

(1) 21.300 Foundations of Education: Social and Historical Bases; Philosophical and Psychological Principles. As part of this course, enrollees are required to participate in a student aide experience (8:30-2:30) once a week in an elementary school situation *in addition* to their regular class meetings. *Prerequisites:* General Psychology and a grade point average of 1.30.

(2) 21.350 Methods and Materials in Elementary and Early Childhood Education: General and Special: Reading, Language, Arts, Social Studies, Mathematics, and Natural Sciences. Students spend time in elementary school field experiences at least one morning per week in addition to regular class meetings per week. *Prerequisites:* General Psychology and a grade point average of 1.50.

(3) 21.444 Student Teaching: Elementary and Early Childhood: Grades K through 6. Fifteen weeks of full-time observation, participation and actual teaching are required.

Note: Persons with a bachelor's degree may arrange to enroll on a half-course basis to meet state certification.

Professional Related Courses

Students are required to complete *any three* (3) of the following courses:

- 5.380 Teaching Art in Elementary Schools
- 21.250 Mathematics for Elementary School Teachers
- 21.427 Inner City Education

- 21.581 Physical Science for Elementary School Teachers
- 21.582 Biological Science for Elementary School Teachers
- 21.345 Children's Literature
- 43.353 Music for Elementary School Teachers
- 49.310 Elementary School Rhythmic Activities
- 49.335 Elementary School Play and Games
- 49.352 Health Education

Electives

To complete a minimum of 32 courses.

Secondary Education

Major

Undergraduate students planning to teach in secondary schools *must major in the field in which they plan to teach*. In addition they must complete the following courses in professional education:

- a. 21.300 Foundations of Education: Social and Historical Bases, Philosophical and Psychological Principles. Students will be required to participate in a 3-hour block of student aide field experience per week in a secondary school *in addition* to regular class meetings. *Prerequisites*: General psychology and a grade point average of 1.30 or better.
- b. 21.340 Methods and Materials in Secondary Education: General and Special: English, Foreign Languages, Mathematics, Natural Sciences, and Social Studies. Methods courses in music, art, and physical education are offered in the respective departments. The course is taken concurrently with 21.445 Student Teaching. *Prerequisite*: 21.300 Foundations of Education.
- c. 21.445 Student Teaching: Secondary Schools. Grade 7 through 12. Twelve weeks of full-time observation, participation and teaching are required. To be taken concurrently with 21.340.
- d. Any other courses required for teaching certification in the state in which the student plans to teach.

Transportation to Schools

For both elementary and secondary majors it is the responsibility of each student to provide transportation to his student-aide, methods, and student teaching assignments. Individual requests for specific school assignments *cannot* be honored.

Graduate Degrees

Graduate requirements are constantly being refined to improve the excellence of the graduate programs of the department. Therefore, students should consult departmental office for the latest information. The student *must assume all responsibility for meeting deadlines* as announced in the University calendar and must be conversant with all graduate regulations pertaining to his particular degree. These will be found in this *catalog* and the *Schedule of Classes* bulletin issued for each semester.

MASTERS DEGREES

The Department of Education offers two degrees in education at the master's level: the Master of Education and the Master of Arts in Education. Each of these degrees has its discrete orientation and addresses itself to the singular need of the student. The Master of Education is appropriate for professional educators, teachers at all levels, and for the person associated with education in its broader aspects and relationships. The Master of Arts in Education is structured to meet the needs of those who, while they are primarily concerned with professional activities which are essentially education in nature, prefer to emphasize the academic or research aspects of their educational interests. The Master of Arts in Education may be more appropriate for teachers of a particular academic subject, or for those whose professional emphasis is in research, or for field workers whose concerns with education are somewhat different from those of the classroom teacher or the school administrator.

Master of Education

See the general regulations in this *catalog*, page 24, regarding graduate study before reading further in regard to minimum standards for admission to the department and other information.

Prerequisites

All candidates must have had one course in general psychology or the equivalent; one course in statistics; a minimum of nine (9) semester hours of undergraduate and/or graduate credit in education; and an acceptable score on the *Graduate Record Aptitude Examination* and/or the *Miller Analogies Test*.

A student who seeks the Master of Education degree must in most cases be able to meet the requirements for a teacher's certificate in some state in elementary or secondary education *unless* enrolling in a program preparing for positions in higher education. Certification requirements universally require student teaching (or successful teaching experience) or an internship such as 21.659, 21.769, or 21.792.

A student may be admitted to a master's degree program only after all prerequisites are met.

Course Requirements

The minimum course requirement for the master's degree is thirty semester hours; some programs, however, will require additional hours. Courses required of all candidates are:

- 21.510 Philosophy of Education
- 21.520 Advanced Psychology of Education
- 21.790 Educational Research
- 21.791 Research Seminar in Education (or In-service Training Project such as 21.659, 21.769, or 21.792)

Written Comprehensive Examinations

Two are required, of which one must be taken in a core field; or both may be taken in the core fields; or one may be taken in a specialized field of education, or in a field outside education, but only if approved by the Department of Education as well as the other department. The core fields in education are (1) psychology of education and (2) the history and philosophy of education. (See detailed literature in the Department of Education. See also page 00.)

Both comprehensives must be taken during the same comprehensive examination period.

Twelve hours of credit may be taken in a department other than the Department of Education if the student plans to take one of the comprehensive examinations in a field outside of education.

Comprehensive Examination Fields

See listing under *Master of Arts*.

Master of Arts

See the page 17 regarding minimum standards for admission and other information.

Prerequisites

Same as for Master of Education degree except that sufficient course work must be taken in a field other than education so that the student is able to demonstrate competence in a comprehensive examination in that field.

Course Requirements

Same as for Master of Education degree, except that 21.797 Master's Thesis Seminar must be taken in place of 21.791 Research Seminar in Education, and a thesis must be written. (See detailed literature in the Department of Education.)

Written Comprehensive Examinations

Two are required, of which one must be taken in a core field of education, and the other in a field outside of education. (See also page 26.) *Both* comprehensives must be taken during the same comprehensive examination period.

Other Requirements

An acceptable thesis and oral defense of the thesis.

Comprehensive Examination Fields Master of Education and Master of Arts Degrees

Core Fields

- 21.001 History and Philosophy of Education
- 21.002 Psychology of Education

Specialized Fields

- 21.003 Educational Administration
- 21.004 Special Education
- 21.005 School Counseling
- 21.006 Student Personnel Services in Higher Education
- 21.007 Reading Education
- 21.008 Supervision and Curriculum Development (General)

DOCTORAL DEGREES

The Department of Education offers two degrees in education at the doctoral level: the Doctor of Education and the Doctor of Philosophy in Education. Each of these degrees has its own discrete orientation and addresses itself to the singular need of the student. The Doctor of Education is appropriate for professional educators: teachers at all educational levels, administrative and supervisory personnel, and all others who are engaged primarily in activities of a purely educative nature. The Doctor of Philosophy in Education is structured for those whose professional orientation to education is not so closely related to classroom activity but rather to research applications of education, or who may wish to relate education to a particular subject area or academic field.

Qualitatively and quantitatively the degrees are coequal. Their differences lie only in the need to structure each degree program to the professional objective of the student.

The privilege that is granted the student to pursue the discipline for the doctorate presumes that the ability of the student is equal to the rigorous demands of the doctoral program. This ability is evidenced by competence to pass appropriate comprehensive examinations which are addressed to the student's knowledge of his field, and his ability to carry out independent study and research in depth relative to that field. No amount of course work by itself will satisfy the total requirements for the doctorate.

The specific differences between the programs for the Doctor of Education degree and the Doctor of Philosophy degree are set forth in the following paragraphs.

Doctor of Education

Prerequisites

Master's degree or equivalent, with a minimum of 18 semester hours of undergraduate and/or graduate work in education; one course in general psychology or the equivalent; a course in basic statistics; and in some instances, the requirements for state certification, unless enrolling in a program preparing for positions in higher education. The student must also have achieved a satisfactory score on the *Graduate Record Aptitude Examination* and/or the *Miller Analogies Test*, and have attained a satisfactory grade point index (2.50) in his former graduate work. All prerequisites must be completed before admission to the program.

Course Requirements

See page 26.

Minimum of 72 semester hours of approved graduate work, including:

- 21.520 Advanced Psychology of Education (3 hours)
- 21.610 Advanced Philosophy of Education (3 hours)
- 21.790 Educational Research (3 hours)
- 21.799 Doctoral Dissertation Seminar (6-12 hours)

Written Comprehensive Examinations

Four are required (one of which may be oral rather than written), including two in the core fields in education (required of all doctoral candidates), a third from a specialized field in

education, and a fourth from either another specialized field in education, or a field outside of education.

One of the core comprehensive examinations may be taken at the time of advancement to candidacy which normally comes after 12-18 hours of work in the doctoral program.

Tools of Research

Proficiency must be demonstrated in two tools of research (quantitative or languages).

The tool examination in *Educational Psychological Measurement and Evaluation*, which is given by the Department of Education, is administered on the Saturday following the first school week in February and the first Saturday in June each year. Students in the cooperative program in Religious Education may substitute the seminar in action research for one of the tools.

The tool in statistics is administered by the Department of Education and may be satisfied by successful completion with a grade of B or better 21.526 Educational Statistics II, or by examination.

Other Requirements

(1) Two consecutive semesters of full-time residency at the University (summer-fall; fall-spring; spring-summer). A minimum of 9 semester hours of course work per semester is required.

(2) Dissertation and oral defense of dissertation (see detailed literature in the Department of Education).

Comprehensive Examination Fields

See listing below under Doctor of Philosophy.

Doctor of Philosophy

Prerequisites

Same as for Doctor of Education degree, described in the preceding.

Course Requirements

Same as for Doctor of Education degree, except that sufficient course work must be taken in one field other than that of education so that the student is able to demonstrate competence in a comprehensive examination in that field.

Written Comprehensive Examinations

Four are required (one of which may be oral rather than written), including two in the core fields of education (required of all doctoral candidates), one in a specialized field in education, and one in a field outside of education. The field outside of education may be from those academic areas which are commonly known as the liberal arts or from another professional field, if the student's anticipated occupation supports such an elective as being reasonable. In the latter case both the Department of Education and the outside department or school must approve of the choice. Candidates, however, must make the necessary arrangements, including course requirements, with the department or school in which they will be taking this outside examination. The Department of Education will not assume responsibility for making such arrangements. An outside field must be determined and approved by all parties at the time of advancement to candidacy.

No comprehensive examination will be given *in absentia*.

One of the core comprehensives may be taken at the time of advancement to candidacy which normally comes after 12-18 hours of work in the doctoral program.

Tools of Research

Proficiency must be demonstrated in two tools of research, one of which must be in a foreign language.

Languages: French, Spanish, German, or another foreign language by special permission of the Department of Education and the Department of Languages and Linguistics.

Quantitative: Statistics, educational measurement, and/or another tool by special permission of the department involved. The tool in statistics is administered by the Department of Education and may be satisfied by successful completion with a grade of B or better 21.526 Educational Statistics II, or by examination.

Other Requirements

Two consecutive semesters of full-time residency must be successfully completed at the University (9 semester hours of course work minimum per semester consecutively: summer-fall; fall-spring; spring-summer). Dissertation and oral defense of dissertation is required.

Comprehensive Examination Fields**Doctor of Education and Doctor of Philosophy in Education***Core Fields*

21.021 Historical and Philosophical Foundations of Education

21.022 Psychological Foundations of Education

Specialized Fields

21.023 Educational Administration

21.024 Special Education

21.025 School Counseling

21.026 Student Personnel Services in Higher Education

21.027 Reading Education

21.028 Supervision and Curriculum Development (General)

21.030 Educational Research

21.031 Higher Education

**Inter-Departmental Program: MSST, MST Programs,
and Joint Program with Wesley
Theological Seminary**

1. For information on the Master of Science in Science Teaching (MSST) program, see the description of the offerings of the various departments in inter-departmental science. For information on the Master of Science in Teaching (MST) program, see the description of the offerings in the College of Continuing Education.

2. A student working for a degree at the Wesley Theological Seminary may apply for admission to a joint program leading to the degree of Doctor of Education awarded by The American University, when his course work at the Wesley Theological Seminary equals the requirements for the Master's degree in Education at The American University. On admission to such a program, candidates will be assigned joint advisors at both the Wesley Theological Seminary and the Department of Education. The candidate should consult both of these advisors in planning his program of courses and in defining his area of research. The chairman of the Department of Education as the director of the joint program shall appoint a dissertation committee of four or more members including at least two from the faculty of the Wesley Theological Seminary, and at least two from the faculty of the Department of Education.

3. Candidates for the degree of Doctor of Education in the joint program must also complete, in addition to the required courses, thirty graduate hours in religious education, or related fields judged by the candidate's advisor to be essential. Furthermore, such candidate must take, in addition to the core examinations in education, comprehensive examinations in religious education and in an additional field chosen from the following seminary disciplines: Systematic theory, Bible, church history, Christian social ethics, and pastoral psychology. The examinations in religious education and in the chosen seminary discipline will be administered by designated faculty members of the Wesley Theological Seminary.

**M.ED. Program for Training Teachers of Emotionally
Disturbed Children**

Commencing July 1969, the U.S. Office of Education, Bureau of Handicapped Children, funded an experimental program designed to train graduate students with no former undergraduate education background to teach emotionally disturbed children.

A unique characteristic of this 12-month program is that the trainee spends a summer session on The American University campus taking courses from the Department of Education, with the following 9 months at the Hillcrest Children's Center, Washington, D. C., in an intense fifty-hour week intern-seminar program. Upon completion of this program the graduates

are awarded a Master of Education degree in Special Education, and meet certification requirements to teach emotionally disturbed children. Fellowships are available. For further information write: Dr. Nicholas Long, Director, Hillcrest-American University Program, Hillcrest Children's Center, 1325 W Street, N.W., Washington, D. C. 20009

OTHER INFORMATION RELATING TO GRADUATE STUDIES

Statute of Limitations

1. Master's Programs: Within three (3) years from the date of first enrollment in graduate degree program.

2. Doctoral Programs: Within five (5) years from the date of his first admission as a doctoral student. In case he has not completed the degree requirements in the time limit specified above, the student must petition for readmission to the program if he wishes to continue. Continuation in the degree program may be granted only once and for a period not to exceed three years. The length of time granted will be specified at the time of readmission. Such an extension of time may require the taking of additional courses, depending upon the degree requirements at the time of readmission.

See page 29 regarding **Maintaining Matriculation.**

Submission of Dissertation Proposal

Doctoral dissertation proposals must be submitted to the Department of Education approximately 18 months prior to the expected time of graduation. For those students who expect to be graduated in a Spring Semester the proposal must be submitted by January 15 of the year prior to that of expected graduation.

Consortium Arrangement

If a particular course is not offered at The American University and is needed in the student's program, and is available at another of the Washington Consortium Universities, he may register for it through the Consortium.

Details of Consortium registration are available in the office of the Registrar.

English

Correspondence Directory:

BARRY A. MARKS, *Chairman*

JEANNE A. ROBERTS, *Graduate Advisor*

UMBERTO J. BALDUCCI, *Undergraduate Advisor*

Field of Study

Literature

Full-time Faculty

Professor: Merritt C. Batchelder, Charles M. Clark, Barry A. Marks, Rudolph Von Abele, Jeanne A. Roberts, Louise M. Young

Associate Professor: Pierre Han, Faye L. Kelly, Edward Kessler, Frances H. King, Charles Larson, Larry McMurtry (Visiting), Mary M. Patton, Frank Turaj

Assistant Professor: Arthur P. Bean, Jr., Umberto Balducci, Roberta Rubenstein, William E. Stahr, Shirley E. (Pfoutz) Yarnall, Francis E. Zapatka

Instructor: Dinshaw Burjorjee, John F. Donahue, Jane Brown Gillette, Ann Goode, Kermit Moyer, Larry Reed

Undergraduate Degree

Bachelor of Arts

Admission to the Major

Formal admission to the major requires a 1.00 average and approval of the department.

University Requirements—See page 24.

Language Requirement—See page 46.

Department Requirements

Major Courses

Majors will complete 12 courses, excluding 23.100-101, Composition and Reading. Three must be the two courses 23.301-302 Studies in Literature and 23.303 Critical Reading. No more than three may be reading lists; no more than six may be topics courses.

Majors, as a minimum requirement, will give sustained attention to *one major work* of literature, to several works of *one major writer*, and to a *literary theory* or a *literary period*. Faculty members will certify the competence of students in each of the three categories.

Related Courses

The department has no "related fields" requirement as such. Students are encouraged to develop an understanding of the subject matter and methods of at least two other University departments and to relate literary study to other disciplines.

Electives

To complete a minimum of 32 courses

Elementary School Teacher Training

Students majoring in education and selecting English as an area of concentration should consult the Department of Education about appropriate courses.

Secondary School Teacher Training

The Department of English, in cooperation with the Department of Education, offers a curriculum which will lead to certification for teaching English at the high school level. Students who have selected this as their vocational objective should see the teacher education advisor in the English Department.

Film Program

A program in film, conducted through the Office of Interdisciplinary Studies, is offered jointly by the Department of English and the Department of Communication. (See Dr. F. Turaj, Department of English.)

Department Honors

Interested students should consult the undergraduate advisor in English no later than the middle of his junior year.

Graduate Degree

Master of Arts

Course Requirements

Minimum of 30 hours distributed as follows:

1. Two graduate seminars
2. 24 additional hours of graduate seminars, special topics courses, or independent reading or study projects, as approved by the student's advisor. No more than two independent reading or study projects may be taken except by students electing the thesis option. With special permission, up to 6 credit hours may be taken outside the English Department, as an integral part of a student's graduate program.

Thesis Option

A master's essay, written under faculty direction, as an independent study project. The thesis option is equivalent to two study projects.

Non-Thesis Option

Two substantial research or critical papers written for courses, study projects, or seminars, to be submitted to the Graduate Studies Committee of the department.

Comprehensive Examinations

Two written examinations:

- (1) 23.100 Literary Forms and Ideas
- (2) One of the following specialized fields:
 - 23.200 English Literature (A period or a type of literature)
 - 23.300 American Literature (A period or a type of literature)
 - 23.400 Comparative Literature (A period or a type of literature)
 - 23.500 Literary Theory and Criticism

Other Requirements

A background in one foreign language, consisting of or equivalent to an intermediate-level college language course.

Advancement to candidacy after completion of three courses or seminars or projects for graduate credit, with a minimum grade average of B.

Health, Physical Education and Recreation

Correspondence Directory: ROBERT H. FRAILEY, *Chairman*

Fields of Study

Health education, physical education, dance, athletic administration, coaching, recreational leadership.

Full-time Faculty

Professor: Robert H. Frailey, Daniel Geiser

Associate Professor: Virginia E. Hawke, Josephine W. Hubbell

Assistant Professor: Billy G. Coward, James D. Frady, Jr., Lawrence G. Nyce, Jr., Naima W. Prevots, Barbara Reimann, Joseph R. Rogers

Instructor: Robert C. Karch, Roy J. Power

Undergraduate Degree

Bachelor of Sciences in Physical Education

(The department is able to assist students in planning an interdisciplinary program leading to a Bachelor of Science or a Bachelor of Arts degree)

Admission to the Major

Freshmen and transfer students are admitted. Academic standards are the same as the University standards.

University Requirements—See page 24.

Language Requirement

Minimum CAS requirement. See page 46.

Departmental Requirements

Major courses in fields of study.

Physical Education

Content Courses—Basic courses in the discipline

49.100 Physical Education Activities (1/2 course each; minimum of four half courses at the 100 level)

49.221 Foundations and History of Physical Education and Sport

49.315 Care and Prevention of Athletic Injuries (49.330 may be substituted)

49.330 Health and Safety (49.315 may be substituted)

49.421 Organization and Administration of Health and Physical Education

49.424 Kinesiology and Physiology of Exercise. *Prerequisites:* 9.110, 9.330-331, 15.100)

49.500 Measurement and Evaluation of Health and Physical Education

Professional Courses—Required for teacher certification

49.210 Methods and Materials in Physical Education

49.211-49.218 Laboratory Teaching Skills (1/2 course each; minimum of four half courses should be selected, one of which must be 49.217)

49.310 Elementary School Rhythmic Activities

(For elementary school physical education majors in place of one 49.200 level Laboratory Teaching Skills course). *Prerequisite:* Junior standing or permission of Instructor.

49.335 Elementary School Games (For elementary school physical education majors in place of one 49.200 level Laboratory Teaching Skills course). *Prerequisite:* Junior standing or permission of Instructor.

Related Courses—*Courses required for teacher preparation are listed below.*

Health Education

These courses may be taken in combination with a major in another discipline.

Content Courses

49.315 Care and Prevention of Athletic Injuries

49.330 Health and Safety

49.421 Organization and Administration of Health, Physical Education and Athletics

(For those preparing to teach)

49.510 Health Education

Related Courses—A detailed list of courses in other departments is available in the Department of Health, Physical Education and Recreation.

Dance

These courses may be taken in combination with a major in another discipline.

Content Courses

49.230 Workshop in Dance Production

49.325 Rhythms and Accompaniment

49.326 History and Philosophy of Dance

49.401 Composition of Dance

Professional Courses

29.216 The Teaching of Dance

49.235 Advanced Methods of Teaching Modern Dance

Related Courses—A detailed list of related courses in other departments is available in the Department of Health, Physical Education and Recreation.

Athletic Administration, Coaching, and Recreational Leadership

These courses may be taken in combination with a major in another discipline.

Content Courses

49.221 Foundations and History of Physical Education and Sport

49.315 Care and Prevention of Athletic Injuries

49.324 Principles and Psychology of Coaching

49.421 Organization and Administration of Health and Physical Education

49.550 Recreation Programs

Professional Courses

49.211-49.218 Laboratory Teaching Skills (1/2 course each; minimum of two half courses)

Related Courses

A detailed list of courses in other departments is available in the Department of Health, Physical Education and Recreation.

Related Courses for Teacher Preparation

9.110 Foundations of Biology

9.330-9.331 Human Anatomy and Physiology I and II (Prerequisites: 9.110 and 15.100 or equivalent)

15.100 Science of Chemistry

57.200 General Psychology

21.300 Foundations of Education

21.342 Methods of Teaching in Secondary Schools: General (For Health Education

Teachers only)

21.444 Student Teaching: Early Childhood and Elementary

or

21.445 Student Teaching: Secondary Schools

Graduate Studies

The Department of Health, Physical Education and Recreation offers a specialization in health and physical education through the established Master of Arts and Master of Education programs in the Department of Education. Students electing this specialization should take as part of the 5 required courses, 49.500 Measurement and Evaluation in Health and Education (3 credits) in place of 21.522 Evaluation of Student Progress (3 credits) and must elect 49.001 Health and Physical Education as one of their two required comprehensive examination fields.

Prerequisites

See prerequisites under Department of Education.

Comprehensive Examination Field

49.001 Health and Physical Education

History

Correspondence Directory: DAVID J. BRANDENBURG, *Chairman*

Fields of Study

American history, European history, Latin American history, Asian history, African history, comparative history, history of archival administration.

Full-time Faculty

Professor: Carl G. Anthon, David J. Brandenburg, Harold E. Davis, Dorothy D. Gondos, Jean T. Joughin

Associate Professor: Robert L. Beisner, Roger H. Brown, Thomas V. DiBacco, Elizabeth Eisenstein, Charles C. McLaughlin, Alison G. Olson, Ivan Rudnytsky

Assistant Professor: Ira N. Klein

Instructor: Terrence R. Murphy

Degree Programs

Bachelor of Arts

Admission to the Major

The student may make major application any time during his undergraduate career provided he has a 1.00 cumulative academic average.

University Requirements——See page 24.

Language Requirement——See page 46.

Departmental Requirements

Major Courses

- a) 29.201, 29.202, 29.203, or 29.204
- b) Historiography
- c) Senior Seminar
- d) Other Courses—A total of seven selected from the .100 through .500 level offerings.

Related Tool Courses

Four courses, other than history, .300 level or above, selected in consultation with departmental advisor from the humanities, social sciences and/or natural sciences.

Departmental Honors

To be eligible for the honors program a student must have completed at least 16 courses of work with a minimum cumulative index of 2.00 and at least 4 courses in history completed with a minimum cumulative of 2.20. The student must be recommended by the department faculty for selection and approved by the chairman of the department.

The nature of the project will depend on the student's interests and capabilities and the willingness of an instructor to undertake the project. Normally, the potential honor student will first register for a reading project; if successful in this project, he will be encouraged to undertake a research project. Departmental honors usually will be assigned only on the basis of completion of both the reading and research projects with grades of A.

Graduate Degrees*

Master of Arts

Admission

See page 17.

Admission to a graduate program is at the discretion of a departmental committee within the frame of reference of University and College of Arts and Sciences standards (see page 00.) In general, a better than 2.00 index in the undergraduate major and 1.75 overall index on a three-point basis is required.

Other admissions requirements: evidence of a substantial beginning in at least one foreign language; the Graduate Record Examination; and two letters of recommendation from recent professors.

Full-time students must be prepared to finish the degree in one calendar year from time of entry (course registration) into the program.

Admission to the M.A. program does not insure admission to the Ph.D. program. In general, admission, especially for full-time students, is for the fall semester. Entry into a graduate program in February, while possible in some cases, will cause scheduling and time-table difficulties.

A graduate degree in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards are not fully met. In order to gain full admission status, the student admitted provisionally must demonstrate to the satisfaction of the Department an ability to pursue a degree program with reasonable promise of success. Upon completion of 12 credit hours of courses taken for letter-grade credit he must then apply for full admission.

Course Requirements

Minimum of 30 hours of approved graduate course work distributed as follows:

(1) Two research seminars (6 hours) and two colloquia, if available, or suitable substitute (6 hours), all taken for letter-grade credit;

(2) Six other courses (18 hours) as directed by the student's advisor. If in the Department of History, some of these six courses may on recommendation of the advisor be taken for "Pass" credit. Part-time students shall take a minimum of 12 hours of these 18 hours for letter-grade credit. Courses taken outside the Department shall be for letter-grade credit.

Comprehensive Examinations

One six-hour written comprehensive examination in one of the following general fields:

History of Modern Western Europe (since the 15th century)

U.S. History (including colonial)

Russian and Eastern European History

Latin American History

An additional oral examination may be scheduled when further evaluation is necessary. In case of failure, a re-examination is subject to the discretion of the Department.

Comprehensive examinations are given in September and May.

Other Requirements

All candidates for the M.A. in history must pass a tool of research examination in one foreign language (German, Russian, French or Spanish) unless he has a recent background experience (normally no more than five years preceding date of admission) in the language, consisting of, or equivalent to, an intermediate-level (second year) college language course.

Two substantial research papers written in research seminars, each with the grade of B or better, or if necessary or desired, a thesis.

The minimum cumulative grade average required to maintain good standing in the M.A. program is B—that is, above B minus with instructors' plus-and-minus notations taken into account.

Timetable

Full-time students should complete all requirements for the M.A. in two semesters. A summer's grace is allowed to accommodate unusual circumstances. Part-time students should complete all requirements for the M.A. within three calendar years after entering the program.

* For graduate studies, major comprehensive examination fields available only in U.S. history, Latin American history, West European and British history, and East European and Russian history

All candidates for the M.A. will satisfy the foreign language requirement as early in their graduate careers as possible. The department will not permit a candidate to take his comprehensive examination until the language requirement has been met except in a case of extreme hardship.

Doctor of Philosophy

Admission

See page 17.

Admission to the Ph.D. program is at the discretion of a departmental committee and is contingent upon the student's having an M.A. degree or its equivalent in history or in a related field (such as political science, economics, anthropology, sociology, literature, art, etc.), with strength shown in history either on the undergraduate or graduate level. Completion of the M.A. does not insure admission to the Ph.D. program.

Full-time Ph.D. students must be prepared to complete all course, language, and comprehensive examination requirements by the end of the second academic year after entry into the Ph.D. program. In general, admission is for the fall semester, especially for full-time students. Entry into a graduate program in February, though possible in some cases, will cause scheduling and time-table difficulties.

A Ph.D. in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards for admission are not fully met. (See description of provisional admission above in section on Master's program.)

Course Requirements

A minimum of 42 hours of approved course work beyond the M.A. is required. At least 30 of the 42 hours must be completed in residence at The American University. Course work, over and above the 30 hours taken for the M.A., shall include, but is not limited to, the following:

- Two research seminars, and one colloquium (or their equivalent substitutes), to be taken for letter-grade credit (9 hours)
- Seven other courses selected by the student and his advisor, taken for "Pass" credit or for letter-grade credit, according to Departmental advice;
- 12 hours of dissertation seminar.

Courses taken outside of the Department of History shall be for letter-grade credit. Part-time students shall take a minimum of 24 of the 42 hours required for letter-grade credit.

Comprehensive Examinations

Four examinations, which may include the M.A. examination taken at The American University on recommendation of the Department. The four examination fields are as follows:

- (1) the general examination fields;
- (2) a specialized field in history outside the geographical area of the "general" field;
- (3) a related field outside history, or a specialized field in history;
- (4) another specialized field—the major field—in history, within the area of the general field and within which field the student will write his dissertation. This field will be tested by oral examination.

Comprehensive fields will be chosen from the standard list printed below. With the advice and consent of the department, field (4) may sometimes be defined specially.

Oral examinations will be given in the general examination field when further evaluation is necessary, and in the dissertation field an oral re-examination may be required when further evaluation is necessary. In case of failure, a re-examination is subject to the discretion of the department.

Other Requirements

All candidates for the Ph.D. in history must satisfy two tool of research requirements. Normally these will be two foreign languages (usually German, Russian, French or Spanish), at least one of which must be met by passing a tool of research examination. The second language requirement may be met through a recent background experience (normally no more than five years preceding date of admission) in the language, consisting of, or equivalent to, an intermediate-level (second year) college language course. When deemed appropriate and approved by the student's advisor and the departmental graduate committee, a student may substitute quantitative techniques or statistics for the second language requirement. The Graduate Committee will stipulate the mode of meeting this requirement.

All candidates for the Ph.D. will be expected to satisfy their tool of research requirements before taking comprehensive examinations in their specialized fields (fields 2, 3, and 4).

The minimum cumulative grade average required to maintain good standing in the Ph.D. program is B— that is, above B minus with instructors' plus-and-minus notations taken into account.

A dissertation and oral defense of dissertation.

Timetable

Full-time students should finish all requirements for the Ph.D. within three calendar years after entering the Ph.D. program, or four years after beginning graduate work. Part-time students should complete all requirements within five calendar years after entering the Ph.D. program. All graduate students must be registered continuously, except for summer. (See **Maintaining Matriculation**, page 29.)

Comprehensive Examination Fields

General Fields

- 29.001 History of Modern Western Europe
- 29.002 History of the United States
- 29.003 History of Latin America
- 29.004 History of Russia and Eastern Europe

Specialized Fields

- 29.010 History of Germany
- 29.011 History of France
- 29.012 History of England
- 29.013 History of Russia
- 29.014 History of the Middle East
- 29.015 History of China
- 29.016 History of Japan
- 29.017 History of South and Southeast Asia
- 29.018 Renaissance and Reformation to 1609
- 29.18A Early Modern Europe (1609 to 1763)
- 29.019 The French Revolution and Napoleon (1763-1814)
- 29.020 History of Europe (1815-1914)
- 29.021 History of Europe since 1914
- 29.022 The U.S. Colonial Period, Revolution and Constitution
- 29.023 The Middle Period of U.S. History (1789-1877)
- 29.025 Recent United States History (since 1877)
- 29.026 The Colonial Origins of Latin America and the Achievement of Independence
- 29.027 Latin America since 1850
- 29.028 European Diplomatic History
- 29.029 European Intellectual History
- 29.030 U.S. Intellectual History
- 29.031 U.S. Diplomatic History
- 29.032 Latin American Intellectual History
- 29.033 Latin American Diplomatic History
- 29.041 U.S. Economic History
- 29.042 European Economic History
- 29.057 Archival Administration

Note: The following fields are available for purposes of specialization (fields 2 or 3) but not for dissertation purposes: 29.014, 29.015, 29.016, 29.017, 29.018.

Inter-Departmental Science

Correspondence Directory: LEO SCHUBERT, *Coordinator* (Department of Chemistry)
Faculties of the Departments of Biology, Chemistry, Mathematics, and Physics.

Fields of Study

Biology, chemistry, mathematics, physics.

Undergraduate Degree

Bachelor of Science in Distributed Science

Admission to the Major

The University offers a program leading to the degree of Bachelor of Science with a major in distributed sciences for students who plan to teach the natural sciences in secondary schools or who wish to receive a broader background in science at the undergraduate level than is afforded by the usual Bachelor of Science degree. The degree is also planned to meet pre-medical and pre-dental requirements of most medical and dental schools.

Students majoring in distributed sciences select their major courses primarily from offerings in the fields of biology, chemistry, mathematics, and physics. Students interested in a program in distributed sciences should consult the chairman of the science department in which they select the major concentration of eight courses. The chairman of that department will assign an advisor early in the program. A minimum of eighteen courses in the combined natural science/mathematics major must be completed to qualify for the degree.

University Requirements—See page 24.

Language Requirement—See page 46.

Departmental Requirements

Major Courses

At least eight courses in one of the following: biology, chemistry, mathematics, or physics.

Related Courses

Four courses in one additional science and two courses in each of two additional sciences. (Where mathematics is selected, certain courses are specified.) Two additional courses that may be in a fifth science or may be added to any of the above four sciences are also required.

Tool Course

41.110 Fundamentals of Mathematics

Electives

To complete a minimum of 32 courses.

Master of Science in Science Teaching

The degree of M.S.S.T. is administered jointly in the College of Arts and Sciences by the Departments of the Sciences, Mathematics, and Education. Students interested in the M.S.S.T. program should consult Dr. Leo Schubert, coordinator, and then the chairman of the science department in which they take their major. The chairman of that department will assign an advisor.

Persons taking the degree in biology must consult the department chairman well before applying for the comprehensive examination.

Course Requirements

Minimum of 30 hours of approved graduate work with six or more hours taken in the major field. The student's undergraduate and graduate courses in the major field must total a minimum of 32 credit hours.

Other requirements include:

- (a) a minimum of eight hours in a second science field.
- (b) one year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the M.S.S.T. program or as non-credit courses along with the courses taken for graduate credit.
- (c) a course in either history or philosophy of science (3).
- (d) six hours of graduate courses in education.

A limited number of courses from the .300-.400 level may be used toward the requirements of this degree. These courses may be selected from:

9.321	9.356	41.322	41.474
9.332	41.310	41.440	51.330-331
9.335	41.312	41.460	51.410
9.341	41.321	41.461	51.450-451

Written Comprehensive Examinations

Two, including one field in natural sciences and one in education.

Languages and Linguistics

Correspondence Directory: VADIM MEDISH, *Chairman*.

Fields of Study

French, German, Russian, Spanish, Czech, Hindi, Hungarian, Indonesian, Japanese, modern Hebrew, Thai, Vietnamese.

Linguistics, French literature, German literature, Spanish literature, Latin American literature, joint area and language programs with the School of International Service.

Full-time Faculty

Professor: Vadim Medish, Henry M. Noel, Hugo J. Mueller

Associate Professor: Martha Adem, Edward I. Burkart, Boris Filipoff, Bruno F. Steinbruckner, Kathryn Day Wyatt

Assistant Professor: Madeleine Betts, Vera Z. Borkovec, Marie A. Charbonneaux, John D. Cronin, Jessica W. Golden, Grace S. Mancill, Eleni K. Oktay, Hugo Pineda, Oscar Salazar, Monique De Jong Ward, Zoe Wythe

Undergraduate Degrees

Bachelor of Arts In French, German, Russian, or Spanish

Admission to the Major

Freshmen and transfers are admitted to the department. They must earn B grades or better in the appropriate language before they are formally recognized as majors.

University Requirements—See page 24.

Language Requirement

See major courses below.

Department Requirements

Prerequisite courses: Completion of the elementary and intermediate language levels. Requirements of elementary and intermediate language course work may be waived if high school or other preparation warrants it.

Major Courses: Required courses at the .300 level or above:

Conversation and Composition I, II, III, IV

Civilization I and II

Pro-Seminar

Introduction to Language, or .500 level literature course

Related Courses: Six course units chosen from no more than two fields of approved concentration.

Departmental Examination: An oral comprehensive examination of approximately one hour's duration before an appointed committee is required.

Electives

To complete a minimum of 32 courses.

Bachelor of Arts In Languages and Area Studies

Admission to the Major

Freshmen and transfers are admitted to the department. They must achieve a B or better cumulative average before they are formally recognized as majors.

University Requirements—See page 24.

Language Requirement

See major courses below.

Programs

These degree programs are administered jointly with the School of International Service. The language-area groups currently are: (a) Russian and U.S.S.R., (b) Spanish and Latin American, (c) French or German and Western Europe, (d) Czech or Hungarian and East Europe, (e) Hindi or Indonesian or Thai or Vietnamese and South or Southeast Asia, and (f) Chinese or Japanese and the Far East.

PROGRAMS (A), (B), (C), AND (D):

Prerequisite

Elementary and intermediate language of the area, or the equivalent.

Required Courses

Conversation and Composition I and II

Civilization (of an Area) I and II

Three approved area subject courses, seminars or colloquia

Related Courses

Six course units from the following fields are required:

Anthropology of the area

Economics of the area

Government and politics of the area

International communications

History of the area

International relations of the area

Literature of the area

Second language of the area

Examination

Oral comprehensive examination is required to test language competence.

Electives

To complete a minimum of 32 courses.

PROGRAMS (E) AND (F):

Required Courses

Elementary language I and II

Intermediate language I and II

Conversation and composition I and II

Introduction to the non-Western world

Introduction to area I and/or II

One or two approved area subject courses or seminars

Related Courses

Three course units in the following fields:

Anthropology of the area

Economics of the area

Government and politics of the area

International communications

History of the area

International relations of the area

Literature of the area

Second language of the area

Examination

Oral comprehensive examination is required to test language competence.

Electives

To complete a minimum of 32 courses

Graduate Degrees

Master of Arts In French, German, Russian, Spanish

Prerequisite

Proficiency in the appropriate language and literature demonstrated either by a B.A. degree in that field of study or equivalent preparation.

Course Requirements

Minimum of 30 hours of approved graduate work, including:

PROGRAM (A) WITH THESIS OPTION

- (1) Core Courses: At least *18* hours in the appropriate literature;
- (2) *Six* hours in M.A. thesis seminar(s), and oral defense of the thesis;
- (3) No more than *six* hours of electives.

PROGRAM (B) WITH NON-THESIS OPTION

- (1) Core Courses: At least *18* hours in the appropriate literature;
- (2) *Six* hours in one of the following concentrations:
 - a. Teaching of a foreign language
 - b. Philology
 - c. Foreign culture
 - d. Second foreign literature
 - e. Applied linguistics
 - f. General linguistics
- (3) No more than *six* hours of electives.

Other Requirements

A better-than-B average must be maintained within the 18 hours of core courses.

Program (A) must include at least one .700 level seminar.

Program (B) must include at least three .700 level seminars. With special permission, one seminar may be replaced by an individual research project.

No more than three hours of electives may be taken in disciplines other than those offered by the Department of Languages and Linguistics.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of core courses is required.

Master of Arts in Languages and Area Studies

These degree programs are administered jointly with the School of International Service. The language-area groups currently authorized under the degree program are as follows:

- A. French or German language—Western Europe area studies
- B. Russian language—USSR area studies
- C. Spanish language—Latin American area studies
- D. Czech or Hungarian language—Eastern Europe area studies
- E. Hindi, Indonesian, Thai or Vietnamese language—South and Southeast Asia area studies.

PROGRAMS (A), (B), (C) and (D):

Prerequisites

The bachelor's degree or its equivalent is required. The student's background must have included three years of an appropriate language and one year (6 credits) in an area-related discipline, such as history, politics, geography, etc.

Required Courses

A total of 30 hours of approved graduate work exclusive of deficiencies assessed at the time of admission is required:

12 hours in literature and/or area subject courses taught in a language of the area.

12 hours in area subject courses taught in English in the School of International Service, other schools and departments of The American University, or the Consortium of Universities.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these.

Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Candidates must take an oral examination conducted in the area language to demonstrate their readiness for the comprehensive examination. Consult the Department of Languages and Linguistics.

Comprehensive Examination

Candidates must take one written interdisciplinary examination in their area field. Consult the School of International Service.

PROGRAM (E):

Prerequisites

The bachelor's degree or its equivalent is required. The student's background must have included at least two years of an appropriate language and one year (6 credits) in an area-related discipline, such as history, politics, geography, etc.

Required Courses

6 hours in literature and/or area subject courses taught in a language of the area are required.

18 hours in area subject courses (taught in English) in the School of International Service, in other schools and departments of The American University, or in the Consortium of Universities are required. With special permission, up to 6 hours may be earned by taking the third (advanced) year of an appropriate area language.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Candidates must take an oral examination conducted in the area language to demonstrate their readiness for the comprehensive examination. Consult the Department of Languages and Linguistics.

Comprehensive Examination

Candidates must take one written interdisciplinary examination in their area field. Consult the School of International Service.

Master of Arts in Linguistics

Prerequisite

B.A. or its equivalent. Proficiency in a modern foreign language equivalent to at least three college years.

Course Requirements

Minimum of 30 hours of approved graduate work, including:

PROGRAM (A) WITH THESIS OPTION

- (1) Core Courses: At least 15 hours in general linguistics;
- (2) Six hours in M.A. thesis seminar(s), and oral defense of the thesis;
- (3) At least one .700 level seminar;
- (4) No more than six hours of electives.

PROGRAM (B) WITH NON-THESIS OPTION

- (1) Core Courses: At least 15 hours in general linguistics;
- (2) Six hours in one of the following concentrations:
 - a. Applied linguistics
 - b. Formal linguistics
 - c. Philology
- (3) At least two .700 level seminars. With special permission, one seminar may be replaced by an individual research project.
- (4) No more than *three* hours of electives.

Language Requirement

Proficiency in a modern foreign language must be demonstrated in one of the following ways:

- (1) Successful completion of a .500-.700 level course conducted entirely, or in part, in a foreign language;
- (2) Successful completion of an individual research project dealing with a linguistic aspect of an approved language;
- (3) At least one semester of a Teaching Fellowship in a foreign language.

Note: Credit thus earned is applicable toward the student's course requirements.

Waiver of the foreign language requirement may be granted to (a) foreign students, and (b) possessors of a B.A. or its equivalent in a foreign language.

Other Requirements

A better-than-B average must be maintained within the 15 hours of core courses.

No more than three electives may be taken in disciplines other than those offered by the Department of Languages and Linguistics.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of core courses.

Comprehensive Examination Fields

Administered by the Department of Languages and Linguistics

- | | |
|---|--|
| 37.001 General Linguistics: | 37.500, 37.501, 37.502, 37.503, 37.505 (courses) |
| 37.002 French Literature: | Selected courses and seminars with emphasis on particular authors, movements, periods, or literary forms. |
| 37.003 German Literature: | |
| 37.004 Russian Literature: | |
| 37.005 Spanish and Latin American Literature: | Selected courses, colloquia, seminars with emphasis on contemporary scene. Applicable for language/area degree only. |
| 37.012 French Literature and Culture: | |
| 37.013 German Literature and Culture: | |
| 37.014 Soviet Literature and Culture: | |
| 37.015 Latin American Literature and Culture: | |

The comprehensive fields listed above are based on core courses and additional courses as required plus additional reading lists.

Mathematics and Statistics

Correspondence Directory: WALTER W. JACOBS, *Chairman*.

Fields of Study

Modern algebra, matrix theory, real and complex variables, linear algebra, mathematical foundations, number theory, partial differential equations, integral equations, calculus of variations, numerical analysis, stochastic processes, probability theory, linear and nonlinear programming.

Full-time Faculty

Professor: Walter W. Jacobs, Nathaniel Macon, Steven H. Schot, John H. Smith

Associate Professor: Mary W. Gray, Richard A. Halzsager, Basil P. Korin, Edmond B. McCue

Assistant Professor: I-Lok Chang, David Crosby, Charels B. Hallahan, James E. Hays, Helmer G. Junghans, Maxine E. Kiefer, Claire T. Machlin, David Mather, Howard Wilson

Instructor: Jean G. Ravenscroft

Undergraduate Degrees

Bachelor of Science

Admission to the Major

Freshmen and transfers will be counseled by the department. Formal admission is possible after student has completed calculus with C grades and a 1.00 average.

University Requirements—See page 24.

Language Requirement

French, German or Russian through the intermediate level. See also page 46.

Bachelor of Science in Mathematics

Major Courses Required

41.111, 41.222, 41.223, 41.322, 41.412, 41.413, 41.420, 41.499*. Two courses selected from 41.440, 41.474, 69.484, 41.515, 41.520, 41.550, 41.551, 41.460, 41.461.

Students, especially those planning graduate work in Mathematics, are encouraged to select additional courses in consultation with advisor.

Related Courses Required

Three courses in a field of application, to be selected in consultation with advisor.

Bachelor of Science in Statistics

Major Courses Required

41.111, 41.222, 41.223, 41.322, 41.420, 41.474, 69.484, 41.499*, 41.510, and either 69.515 or 69.516.

Related Courses Required

Three courses in a field of application, to be selected in consultation with advisor.

Bachelor of Science in Applied Mathematics

Mathematics Courses Required

41.111, 41.222, 41.223, 41.322, 41.412, 41.413, 41.420, 41.499*. Students are encouraged to take additional courses in operations research and computer science.

Statistics Courses Required

Either (a) or (b):

- (a) For students desiring a mathematical foundation in statistics: 41.474, 69.484.
- (b) For students desiring statistics oriented toward a supplementary discipline, such as biology, economics, business, psychology, etc.: 69.202, and another statistics course.

Required Courses in the Supplementary Discipline

Six courses to be selected in consultation with the department offering the supplementary discipline. The nature of the student's special interest will determine which courses are appropriate.

Graduate Degrees

Master of Arts in Mathematics

Course Requirements

Minimum of 30 hours of approved graduate work, including 41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6 credits).

Written Comprehensive Examinations

Three, including 41.001 Modern Algebra or 41.002 Matrix Theory* or 41.007 Linear Algebra; 41.003 Real Variables or 41.004 Complex Variables; and one other approved field.

Other Requirements

Proficiency examination in French, German or Russian to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory.

Master of Arts in Statistics**Course Requirements**

(1) Minimum of 30 semester hours of approved graduate work, including 41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6 credits).

(2) Non-thesis option: Minimum of 33 semester hours of approved graduate work, including at least three hours of 69.690 Research Project.

Written Comprehensive Examinations

Three, including 69.001 Statistical Theory; 41.024 Theory of Probability; and one other approved field in statistics, mathematics (especially 41.027 Linear Algebra for Statistics or 69.026 Analysis for Statistics) or a field of application.

Other Requirements

Proficiency examination in Russian, German or French to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory in option (1).

Doctor of Philosophy in Mathematics**Course Requirements**

Minimum of 66 hours of approved graduate work is required, plus the required semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics, at least 30 (plus dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations

Four, including written examinations in 41.005 Real and Complex Variables, 41.006 Modern Algebra and Linear Algebra, and one other approved field, and one oral examination. Approved fields are 41.018 Numerical Analysis, 41.026 Topology, 41.027 Applied Mathematics, 41.028 Operations Research, 41.029 Probability and Statistics.

Comprehensive Examination Fields*Core Fields*

- 41.001 Modern Algebra (M.A. only)
- *41.002 Matrix Theory (M.A. only)
- 41.003 Real Variables (M.A. only)
- 41.004 Complex Variables (M.A. only)
- 41.005 Real and Complex Variables (Ph.D. only)
- 41.006 Modern Algebra and Linear Algebra (Ph.D. only)
- 41.007 Linear Algebra (M.A. only)

Specialized Fields

- 41.027 Applied Mathematics
- 41.029 Probability and Statistics
- 41.018 Numerical Analysis
- 41.026 Topology
- 41.028 Operations Research

Other Requirements

Proficiency is required in two languages chosen from French, German or Russian, to be satisfied before advancement to candidacy. The dissertation on a topic sponsored by a full-

* Full-time students will attend 41.099 for seven semesters and register for 41.499 in the eighth. Each seminar will meet one hour per week. Part-time students will attend evening three-hour seminars, 41.099, for one semester and 41.499 during their senior year. Upon completion of either program, one credit will be granted for 41.499.

* Not offered after spring 1971

time faculty member is in an appropriate field of analysis or algebra, and oral defense of dissertation in the field in which it lies is required.

Doctor of Philosophy in Statistics

Course Requirements

A minimum of 66 semester hours of approved graduate work is required, plus the required semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics, at least 30 (plus dissertation credit) of which must be completed in residence at The American University.

Written Comprehensive Examinations

Five fields are required as follows:

69.002 and 69.003 Advanced Statistical Theory I and II

41.024 Theory of Probability

69.026 Analysis for Statistics

69.027 Linear Algebra for Statistics

Other Requirements

Proficiency is required in two languages chosen from Russian, German or French, to be satisfied before advancement to candidacy. The dissertation on a topic sponsored by a fulltime faculty member is in an appropriate field of mathematical statistics, and the oral defense of the dissertation and the field in which it lies follows.

Comprehensive Examination Fields

Core Fields

69.001 Statistical Theory (M.A. only)

69.002 and 69.003 Advanced Statistical Theory I and II (Ph.D. only)

41.024 Theory of Probability (M.A. and Ph.D.)

69.026 Analysis for Statistics (required for Ph.D.)

69.027 Linear Algebra for Statistics (required for Ph.D.)

Specialized Fields

41.023 Stochastic Processes

69.010 Theory of Experiment Design

69.020 Theory of Sampling

Music

Correspondence Directory: LLOYD ULTAN, *Chairman*.

Fields of Study

History and literature, musicology, theory, composition, church music, music education, applied music (performance).

Full-time Faculty

Professor: Evelyn Swarthout Hayes, James L. McLain, Gordon H. Smith, Lloyd Ultan

Associate Professor: Esther W. Ballou, Thomas H. Hill, Raphael Hillyer, Alan Mandel, Vito E. Mason, George C. Schuetze, Jr.

Assistant Professor: Charles Crowder, Elizabeth Vrenios

Undergraduate Degrees

Bachelor of Arts, Bachelor of Music, Bachelor of Music Education

Admission to the Major

A student is admitted only after audition and a one year probationary period. During the year of probation required of all new students, musical ability in the area of performance and in the field of music theory must be demonstrated. A 1.00 overall average is required and a B average in his major field.

University Requirements—See page 24.

Language Requirement—See page 46.

German is recommended for students specializing in music history.

Department Requirements

Major Courses

- 43.104 Theory I
 - 43.105 Theory II
 - 43.204 Theory III
 - 43.205 Theory IV
 - 43.300 History of Music I
 - 43.301 History of Music II
 - 43.302 Ear Training and Sight Reading
 - 43.304 Theory V
 - 43.305 Theory VI
 - *43.306 Conducting I
 - *43.307 Conducting II
 - *43.311 Orchestration
 - *43.312 Keyboard Harmony I
 - *43.313 Keyboard Harmony II
- and Applied Music until completion of Senior Recital.

Related Courses

All music majors must complete a minimum of three courses of additional work in one of the following fields of specialization:

Music history and literature

Music Theory

Composition

Music Education (Instrumental or Vocal)

43.140 Introduction to Music Education, 43.363 General Music Methods and Materials, 21.300 Foundations of Education and 21.444 Student Teaching: Elementary and/or 21.445 Student Teaching: Secondary Schools are required of all students specializing in music education.

Performance (not open to B.A. candidates)

43.550 Pedagogy I, 43.551 Pedagogy II, and a minimum of one course of Applied Music at the 44.434 level is required of all students specializing in Performance.

Related Tool Courses (not applicable to performance majors)

A sequence of applied music courses as determined by the department.

Other Requirements

A student majoring in music is required to:

(1) participate in a faculty-conducted ensemble, related to his performance area where possible, for a minimum of one ensemble for each semester that he is in full-time attendance here (4 semesters for B.A. candidate; for a part-time student one semester of ensemble for each 4 courses completed on campus);

(2) present one half of a senior recital program (a performance major presents a full senior recital program—no recital required for B.A. degree);

(3) pass a departmental *Senior Comprehensive Examination* in music history and theory during his final year of study.

Electives

To complete a minimum 32 courses.

Graduate Degree

Master of Arts

Admission

See page 17.

For possible graduate deficiencies, consult the undergraduate departmental requirements. Graduate deficiencies may be made up by appropriate course work or by waiver examination.

* Not required for B.A. in music

Four semesters of harmony and of ear training, and one semester each of form and analysis, 16th-century counterpoint, and 18th-century counterpoint shall be considered the equivalent of Theory I-VI. Courses no longer offered by the department (e.g., 16th-century counterpoint) may be made up as undergraduate reading courses.

All students are required to take the departmental *Senior Comprehensive Examination* in music history and theory (Graduate Placement Examination) either before or during their first semester of graduate work. The results are intended for counseling purposes only.

Students wishing to specialize in either Performance or Church Music are required to audition, either in person or by tape recording, prior to admission. The graduate degree in performance is offered in all undergraduate performance areas, with the exception of guitar.

Students wishing to specialize in music education are required to have completed before admission to graduate study:

- (1) nine hours in education; and
- (2) one semester of teaching experience, or the equivalent in practice teaching.

Fields of Specialization

Course Requirements

Composition

Minimum of 30 hours, including:

43.507 Studies in Music Theory (3);

43.703 Advanced Composition (3);

43.797 Master's Thesis Seminar (3-6), the requirement being a large composition rather than a thesis;

plus a minimum of nine hours of additional graduate-level theory and composition courses.

Music History (Musicology)

Minimum of 30 hours, including:

43.510 Introduction to Musicology (3);

43.797 Master's Thesis Seminar (3-6);

Plus a minimum of twelve hours in additional graduate-level music history and literature courses.

Church Music

For this particular degree no thesis is required; minimum of 36 hours, including:

43.515 Advanced Conducting (3);

43.570 Music in Worship (3);

43.670 Seminar in Church Music (3);

43.680 Medieval Music (3);

43.701 Renaissance Music (3);

43.500 Music of the Baroque Era (3);

_____and either (for organ majors):

44.532 Service Playing and Improvisation (4); or

44.742 Private Instrumental Study (organ) (4);

_____or (for choral majors):

43.504 Studies in Music Literature: Sacred Vocal Music (3);

44.792 Private Vocal Study (4).

Music Education

Minimum of 30 hours, including:

43.760 History and Philosophy of Music Education (3);

either 43.797 Master's Thesis Seminar (3-6)

or 43.690 Research Project (3)

plus either (a) or (b):

(a) for instrumental majors and vocal majors:

21.522 Evaluation of Student Progress (3);

43.540 Introduction to Graduate Study in Music Education (3).

(b) for general music majors:

43.510 Introduction to Musicology (3).

Performance

Minimum of 30 hours, including:

43.510 Introduction to Musicology (3);

43.550 Pedagogy I (2);

43.551 Pedagogy II (2);

43.797 Master's Thesis Seminar (3 only);

plus four hours of applied music at the 44.791 or 44.792 level.

Electives

Electives may include any other graduate-level courses in the Department of Music. Students specializing in church music may also select, with the assistance of the church music advisor, from among the following:

(1) appropriate courses in the Department of Philosophy and Religion;

(2) appropriate courses at the Wesley Theological Seminary.

Electives to complete the 30 hours (36 hours in church music) may not include:

(1) more than six hours of non-music courses; registration in such courses for credit toward the degree must be approved by the chairman of the Department of Music;

(2) more than four hours of applied music (students specializing in performance or in church music may not include more than six total hours of applied music, i.e., two hours beyond the four that are required);

(3) more than three hours of 43.555 Collegium Musicum (1).

Comprehensive Examinations

One examination in music history and theory, and one examination in the student's field of specialization.

Comprehensive Examination Fields

43.000 General Music History and Theory (required of all students)

43.001 Composition

43.002 Music History (Musicology)

43.003 Church Music (organ sub-specialty)

43.004 Church Music (choral sub-specialty)

43.005 Music Education (instrumental)

43.006 Music Education (vocal)

43.007 Music Education (general music)

43.008 Master's Recital

Other Requirements

Proficiency in German, French, or an approved substitute is required of students writing a thesis (i.e., majors in music history, performance, and music education majors who elect 43.797). Statistics, or the equivalent, may be required, as determined by the music education Advisor, in place of a language proficiency for students specializing in music education.

Proficiency in organ playing is required of church music majors specializing in organ music; proficiency in choral singing techniques is required of church music majors specializing in choral music. This requirement can be met by completing satisfactorily appropriate undergraduate courses in applied music, as determined by the Church Music Advisor, or by waiver examination.

Students majoring in performance are required to present a minimum of four appearances in departmental student recitals, at least one as part of an ensemble performance, in addition to a full master's recital program.

Philosophy and Religion

Correspondence Directory: HAROLD A. DUFEE, *Chairman*.

Fields of Study

Biblical theology, comparative religion, Eastern philosophy, epistemology, history of philosophy, logic and philosophy of science, philosophical theology, value theory.

Full-time Faculty*Professor:*

Harold A. Durfee (William Frazer McDowell, Professor),
Theodore R. Rosche

Associate Professor:

David. F. Rodier
Roger T. Simonds,
William M. Wiebenga

Assistant Professor:

Barry Blose,
Cornelia Church
Charley Dean Hardwick,
Heimo Hofmeister,
Phillip H. Scribner

Visiting Professor:

John A. Mourant

Undergraduate Degree**Bachelor of Arts**

University Requirements—See page 24.

Language Requirement

One language is required through the intermediate level: French, German, Greek or Latin. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Departmental Requirements**PHILOSOPHY****Major Courses**

Students majoring in philosophy must complete 47.100 Logic and Scientific Method, 47.300-301 History of Philosophy, and 6 courses (at the 300-level and above,) in philosophy which may include 3 courses in religion at the 300-level or above.

Related Courses

Three courses at the 300-level or above in a single department.

Students majoring in philosophy are required to pass the Graduate Record Examination.

Electives

To complete a minimum of 32 courses.

RELIGION**Major Courses**

Students majoring in religion are required to complete 47.150 Introduction to the Old Testament and 47.170 Introduction to the New Testament, 47.370-371 History of Christian Thought, 5 additional courses in religion which must include 47.550 and may include 3 courses in philosophy.

Related Courses

Three courses at the 300-level or above in a single department.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Master of Arts in Philosophy

Two means are available for achieving an M.A. degree in Philosophy:

First Method

Course Requirements

Minimum of 30 hours of approved graduate work including 47.797 Master's Thesis Seminar (6).

Written Comprehensive Examination

One eight-hour examination in philosophy (administered in two days, four hours each day).

Graduate Comprehensives

Examination fields 47.01A and 47.01B Philosophy.

Other Requirements

Proficiency examination in French or German. Thesis and oral defense of thesis.

Second Method

Admission to a Ph.D. program and satisfactory completion of all requirements for the program except the dissertation.

Master of Arts in Religion

Course Requirements

Minimum of 30 hours of approved graduate work, including 47.797 Master's Thesis Seminar (6).

Written Comprehensive Examinations

Three are required, including one in the history of religion with special emphasis upon a selected non-Christian religion, one in the English Bible with special emphasis upon a selected author, and one in the History of Christian Thought with special emphasis upon a selected classical figure, or a related field.

Other Requirements

Proficiency examination in French, German, Greek, or Hebrew. Thesis and oral defense of thesis.

Comprehensive Examination Fields

- 47.003 History of Religion (with special emphasis upon a selected non-Christian religion).
- 47.004 English Bible (special emphasis upon a selected author).
- 47.021 History of Christian Thought (with special emphasis upon a selected classical figure in the same).

Doctor of Philosophy in Philosophy

General Requirements

See page 25.

Minimum of 72 hours of approved graduate work are required of which at least 30 hours (plus 6-24 hours of dissertation seminar) must be completed in residence at The American University.

Admission

For consideration for admission, it is recommended that a student have a superior undergraduate record and take the *Graduate Record Examination*. Two letters of recommendation are required.

Course Requirements

Forty-eight to sixty-six hours of courses plus 6-24 hours of dissertation seminar are required.

Tools of Research

Two language proficiency examinations, French and German, or an acceptable substitute are necessary.

Written Comprehensive Examinations

Four are required, to include:

- (1) History of Philosophy
- (2) Logic and Philosophy of Science
- (3) Metaphysics and Epistemology
- (4) Value Theory

Advancement to Candidacy

Within six months after passing comprehensive examinations the student is to pass an oral examination in a field selected by him subject to departmental approval. Upon successful completion of the oral examination the student will be advanced to candidacy for the doctoral degree.

Dissertation and Oral Defense

The doctoral candidate is required to enroll for 6-24 hours of dissertation seminar.

Comprehensive Examination Fields

- 47.010 History of Philosophy
- 47.015 Logic and Philosophy of Science
- 47.020 Metaphysics and Epistemology
- 47.025 Value Theory

Physics

Correspondence Directory: MARK HARRISON, *Chairman*.

Fields of Study

Physics, mechanics and quantum theory, electromagnetism and optics, statistical and thermal physics.

Full-time Faculty

Professor: Earl Callen, Charles M. Davis, Mark Harrison, Howard Reiss, Bancroft Sitterly (Emeritus), John A. White

Associate Professor: Ronald J. Adler, Benson T. Chertok, Jacek Jarzynski, Romeo A. Segnan, Richard V. Waterhouse

Assistant Professor: E. Kevin Cornell, Richard B. Kay, Henning William Leidecker

Undergraduate Degrees

Bachelor of Science, Bachelor of Arts

Admission to the Major

Freshmen and transfers will be counseled by the department. Students who complete Introduction to Physics I and II with a grade of C or better are admissible to the major.

Bachelor of Science

University Requirements—See page 24.

Language Requirements—See page 46.

Departmental Requirements

Students planning to major in physics should register for 51.120-121 Introduction to Physics I and II at the earliest opportunity. Prior or concurrent registration in 41.110 Fundamentals of Mathematics, and 41.111 Analytical Geometry and Introduction to Calculus is

required. It is urged that 51.120-121 be taken in the freshman year if possible and the sophomore year at the latest.

While 51.120-121 Introduction to Physics I and II is the customary starting point for physics majors, students with good high school preparation can begin with 51.230 Principles of Mechanics and 41.222 Calculus.

Major Courses

- 51.120-121 Introduction to Physics I and II
- 51.122-123 Physics Laboratory I and II
- 51.230 Principles of Mechanics
- 51.231 Waves, Oscillations, and Relativity
- 51.350 Principles of Electromagnetism
- 51.452-453 Advanced Laboratory I and II
- 51.551 Electromagnetic Waves and Optics
- 51.560 Thermal and Statistical Physics
- 51.570 Introductory Quantum Mechanics
- 51.582-583 Advanced Laboratory III and IV

Related Courses

- 15.110-111 General Chemistry I and II, or high school chemistry.

Tool Courses

- 41.110 Fundamentals of Mathematics
- 41.111 Analytical Geometry and Introduction to Calculus
- 41.222-223 Differential and Integral Calculus I and II

Students continuing on to graduate work in physics are advised to take 51.500-501 Introduction to Mathematical Physics I and II and 51.572-573 Quantum Physics I and II.

Electives

To complete a minimum of 32 units.

Bachelor of Arts

University Requirements——See page 24.

Language Requirements——See page 46.

Departmental Requirements

Students planning to major in physics should register for 51.120-121 Introduction to Physics I and II at the earliest opportunity. Prior or concurrent registration in 41.110 Fundamentals of Mathematics, and 41.111 Analytical Geometry and Introduction to Calculus is required. It is urged that 51.120-121 be taken in the freshman year if possible and the sophomore year at the latest.

Major Courses

- 51.120-121 Introduction to Physics I and II
- 51.122-123 Physics Laboratory I and II
- 51.230 Principles of Mechanics
- 51.231 Waves, Oscillations, and Relativity
- 51.350 Principles of Electromagnetism
- 51.560 Thermal and Statistical Physics
- 51.570 Introductory Quantum Mechanics

Tool Courses

- 41.110 Fundamentals of Mathematics
- 41.111 Analytical Geometry and Introduction to Calculus
- 41.222-223 Differential and Integral Calculus I and II

Electives

To complete a minimum of 32 units.

Graduate Degrees

Master of Science

General Requirements

A minimum of 30 hours of approved graduate work is required.

Core Courses

It is expected that the student will advance his knowledge of basic theory in the core areas of physics. Accordingly, the student will take most of the following core courses at an early date:

- 51.630-631 Theoretical Mechanics I, II
- 51.650-651 Electromagnetic Theory I, II
- 51.660-661 Statistical and Thermal Physics I, II
- 51.670-671 Quantum Mechanics I, II

While it is desirable to take all of these core courses inasmuch as they provide a conceptual foundation and are accordingly strongly represented on the comprehensive examinations, the student's program should also include such specialized courses as are required by the research training program. The appropriate balance of core courses and specialized courses should be worked out with the student's advisor as described below.

Research Training Program

In order to expedite the student's research training, it is required that the student during his first year of graduate work will register sequentially for two semesters of 51.600-601 Current Topics I and II (2). In the first semester of this course, he is required to select an advisor with whom he will plan a program of specialized courses to complement the appropriate core courses given above. The student then continues his research training by subsequently registering for six hours of either 51.795 Research Training Seminar or 51.797 Master's Thesis Seminar.

Written Comprehensive Examinations

Two approved fields: 51.001 Mechanics and Quantum Physics, 51.002 Electromagnetism and Optics, Statistical and Thermal Physics.

Master of Arts

General Requirements

A minimum of 30 hours of approved graduate work including 51.600-601 Current Topics I and II (2) which should be taken during the first year of graduate work.

Program Requirements

The Master of Arts program is intended to be flexible so as to meet the needs of the students whose interests are in teaching, management, or other multidisciplinary activities. During the first semester of the course 51.600 Current Topics I, the student will select an advisor with whom his program will be planned.

Written Comprehensive Examinations

Two approved fields: 51.001 Mechanics and Quantum Physics, 51.002 Electromagnetism and Optics, Statistical and Thermal Physics.

Doctor of Philosophy

General Requirements——See page 25.

A minimum of 72 hours of approved graduate work is required.

Qualifying Examination

The student is required to take a qualifying examination at an early date after entrance into the doctoral program. The *Qualifying Examination* is the above M.S. comprehensive examination and may be waived by M.S. students who score a grade of Distinction.

Core Courses

The student is required to have completed 51.360-631 Theoretical Mechanics I and II (6), 51.650-651 Electromagnetic Theory I and II (6), 51.660-661 Statistical and Thermal

Physics (6), and 51.670-671 Quantum Mechanics I and II (6), and 51.600-601 Current Topics I and II (2).

Dissertation

Upon completion of the *Qualifying Examination* the student and his advisor are expected to assemble a dissertation committee to assist in the planning of his doctoral program. While the doctoral program is principally concerned with the development of creative scientists, the program is flexibly arranged to accommodate students who are primarily interested in undergraduate teaching, administration, or other interdisciplinary studies.

Tool of Research

Proficiency of a language, computer programming, or other tool deemed appropriate by the student's dissertation committee.

Oral Examinations

The student is required to take oral examinations in defense of his dissertation and over the basic material relevant to the area of research.

Written Comprehensive Examination

Two approved examinations: 51.005, 51.006 Ph.D. Comprehensive Examinations I, II. These examinations cover the subject area of the dissertation and material relevant to the area of research.

Psychology

Correspondence Directory: CHARLES FERSTER, *Chairman*

Fields of Study

General, experimental, learning and conditioning, behavior modification, clinical.

Full-time Faculty

Professor: John Boren, Charles Ferster, Alan Leventhal, Fred Nothman

Associate Professor: Stanley Weiss

Assistant Professor: Alan Berman, James Gray, Michael J. Guralnick, James Hays, Barry McCarthy, Nancy Russo, Annette S. Thompson

Undergraduate Degree

Bachelor of Arts

Admission to the Major

Formal admission to the major requires a 1.00 average and approval of the department chairman.

University Requirements—See page 24.

Language Requirement—See page 46.

Departmental Requirements

Major Courses

Psychology majors are required to take a minimum of 8 courses from the offerings of the department. The prerequisite for all offerings is:

57.200 Introductory Survey of Psychology

or

57.210 Introductory Psychology: Behavior Principles.

Both of these courses may be taken for credit, but only one is required.

A student planning on pursuing graduate work should include in his undergraduate program:

57.311 Advanced Behavior Principles

57.301 Psychological Statistics

57.480 Experimental Psychology

It is further recommended that he sample from courses both in the experimental and applied areas. Consult a departmental advisor for guidance.

Related Courses

In consultation with his advisor, the student must choose a minimum of 3 courses, at the 300 level or above, from areas other than psychology. The selection should be made in line with the student's career goals. Areas frequently chosen include the following: anthropology, biology, economics, education, mathematics, philosophy, physics, political science, sociology and statistics. The specific courses must be approved by the major advisor.

Departmental Honors

Consult the department chairman.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Master of Arts

Doctor of Philosophy in Experimental Psychology

Program Description

The primary concern of the experimental psychology program is to help the student develop his abilities to become a productive research scientist and teacher. Therefore, the essential character of this graduate program aims to stimulate creative research and its effective communication. This is achieved through on-going research activity the student can use as a model, and emphasis on the early acquisition of those research tools necessary for independent work, and close student-professor cooperation in the laboratory. The goals of the experimental program are coordinated in course content, research experience, and teaching practicums.

Admission

See page 17.

The master's and doctoral programs are continuous and integrated with an emphasis on productive research. Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue towards that degree. Admission criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements—The first two years:

Fifteen of the 36 hours credit required for the master's degree, courses which should be viewed as the first two years of doctoral training, are scheduled as follows:

First Year

Fall: Inferential Statistics*
Instrumentation for Psychology
Foundations of Experimental Research*

Interession: M.A. Thesis; Elective

Spring: Conditioning and Learning*
Sensation and Perception, Physiological Psychology, or approved elective

* Core courses common to experimental and clinical students

Second Year

Fall: Social Psychology*
 Elective (Psychology)
 Research (M.A.)

Intersession: M.A. Thesis; Elective

Spring: Systems of Psychology*
 Elective (Psychology, or related field with permission of advisor)
 Research (M.A.)

The above courses assume an undergraduate competence in their respective areas and quickly progress from that level to coverage of the currently active research endeavors with an emphasis on research methodology, critical problems, laboratory experience and research design. These core and experimental specialty courses will be supplemented by seminars conducted by the faculty and prominent psychologists in the Washington area.

Doctoral Candidacy—The third and fourth years:

After successfully completing the requirements presented above, the student advances to doctoral candidacy. During the third year of graduate study he takes part in a *teaching internship*, takes his *specialty* examinations in experimental psychology, satisfies his *tools of research* requirement, and by his fourth year begins his *dissertation research*.

Third Year

Fall: Correlational Statistics*
 Elective (Psychology, or related field with permission of advisor)
 Teaching Internship

Spring: Computer Language and Applications (or other approved elective)
 Elective (Psychology, or related field with permission of advisor)
 Research (Ph.D.—3 credits)

Fourth Year

Fall: Elective
 Research (Ph.D.—6 credits)

Spring: Research (Ph.D.—9 credits)

See also general requirements for all doctoral students in psychology.

Master of Arts**Doctor of Philosophy
in Clinical Psychology****Program Description**

While scientific and professional training are spread throughout the three years of didactic instruction, the first year represents a concentration in *experimental science*, the second in *professional techniques*, and the third in special attention to particular areas of professional functioning as they have evolved out of *research* and *application of theory*.

Core courses are distributed throughout the three years. The core is designed to provide the student with a solid grounding in experimental science and teach a manner of approach to problems which will characterize professional functioning. Relevant training experiences are scheduled in the second and third years; a two-semester sequence of courses covers test theory and administration and a three-semester sequence is devoted to practicums. In the practicum the student will learn basic skills necessary in counseling and psychotherapy with special emphasis in behavior modification, which will characterize this training.

Admission

See page 17.

The master's and doctoral program are continuous and integrated with an emphasis on research and behavior modification. Completion of the master's program at a level demonstrating doctoral potential will permit the student to continue toward that degree. Admission

* Core courses common to experimental and clinical students.

criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements——The first two years

For full-time students (those who register for nine credit hours per semester, attend the intercession, and take one course during the summer) the master's program will require two years of study. This credit load assumes the student is spending additional time as a research or teaching assistant, residence hall assistant, or clinical trainee. In this period the student is expected to complete a master's thesis.

Thesis Requirement

The thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience.

Schedule of Courses

The first two years leading to the master's degree are scheduled as follows:

First Year

- Fall: Inferential Statistics *
 Foundations of Experimental Research
 Systems of Psychotherapy
- Intercession: Ethics and Professional Practice
- Spring: Conditioning and Learning
 Test Theory
 Experimental Foundations of Clinical Psychology
- Summer: Personality Theory
 M.A. Thesis

Second Year

- Fall: Correlational Statistics *
 Intelligence, Aptitude and Interest Testing
 Practicum I
 M.A. Thesis
- Intercession: M.A. Thesis
- Spring: History and Systems *
 Personality Testing
 Practicum II
 M.A. Thesis
- Summer: Advanced Abnormal Psychology

Doctoral Candidacy——The third and fourth years

After successfully completing the requirements presented above, the student advances to doctoral candidacy. During the third year of graduate study he takes additional courses, completes the tools of research requirement, begins the dissertation, and makes arrangement for a pre-doctoral internship to take place during the fourth year:

Third Year

- Fall: Practicum III
 Social Psychology *
 Student Culture, Community Consultation, Contemporary Issues
- Intercession: Ph.D. Dissertation
- Spring: Elective
 Clinical Elective
 Dissertation
- Summer: Elective

Fourth Year

Off-campus Internship in appropriate clinical setting and completion of Ph.D. dissertation.

See also general requirements for all doctoral students below.

* Core courses common to experimental and clinical students

General Requirements For All Doctoral Students

Evaluation for Doctoral Candidacy

Before becoming a doctoral candidate, each student will be evaluated by the entire faculty with regard to the quality of the:

- (1) Master's thesis
- (2) Course performance (at least a B average must be maintained in all courses, with no more than one C).
- (3) Assistantship and/or practicum performance
- (4) Oral examination that would serve as a master's thesis defense and as fulfilling in part the qualifications for the doctoral candidacy.

Tools of Research

Two tools are required. This requirement may be satisfied by any two of the following:

- (1) Demonstrating a reading knowledge of *one* foreign language pertinent to research in psychology;
- (2) Competency in areas such as mathematical statistics, computer analysis, or content outside of psychology relevant to the student's research interests (which may be satisfied by taking courses or an examination); or
- (3) A departmentally approved apprenticeship training experience.

At least one of these tools must be completed before approval of the student's doctoral dissertation proposal.

Specialty Examinations

A test of the student's knowledge of experimental or clinical psychology in general and his area of specialization in particular. An oral comprehensive examination is also required as determined by the director of the respective graduate program. These examinations must be passed prior to formal acceptance of the dissertation proposal.

Dissertation

A written proposal of the dissertation is to be submitted to the dissertation committee by the middle of the second semester of the third year. The original proposal, or a revision thereof, should meet the requirements of the committee by the end of the second semester. This allows adequate time for the completion of a quality dissertation even if initial experimentation turns out to be exploratory in nature. The committee is composed of four members, including the chairman. In the event that a dissertation is interdisciplinary in nature, one of the committee members should be a representative of the pertinent outside area. These four members also constitute the dissertation oral committee. This examination is open to all members of the department, as well as the University in general, and constitutes the final evaluation of the doctoral candidate.

Approval of the dissertation by the committee represents the successful completion of the doctoral program, since all other university and departmental requirements will have been satisfied by the time of the dissertation defense.

Sociology

Correspondence Directory: GILLIAN GOLLIN, *Acting Chairman*

Fields of Study

Theory, methods, complex organizations, comparative social organization, social psychology; sociological.

Full-time Faculty

Professor: Annabelle B. Motz, John Carver Scott, Jr., Austin Van Der Slice

Associate Professor: Gillian Gollin, Karen Petersen, David N. Ruth

Assistant Professor: Barbette Blackington, Muriel Cantor, Ivan Eames, Artemis Emmanuel, Barbara H. Kaplan, Harold Yahr

Instructor: E. Dudley Parris

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The student who maintains a 1.50 cumulative average may be admitted in the sophomore year after consultation with a department advisor.

University Requirements——See page 24.

Language Requirement

Minimum CAS requirement. See page 46.

Department Requirements

Major Courses

- 65.200 Introduction to Sociology
- 65.410 Classical Sociological Theory
- 65.411 Contemporary Sociological Theory
- 65.420-421 Introduction to Social Research I and II

Related Courses

- 69.202 Basic Statistics

Students will be counseled to take additional work in psychology, anthropology, economics, political science, history, philosophy, and statistics.

Department Honors

Consult the department for details.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Master of Arts

Course Requirements

A minimum of 30 hours of approved graduate work is required including:

- 65.510 Concepts of Sociology
- 65.511 Theory of Social Research
- 65.610-611 History of Sociological Theory I and II
- 65.612-613 Social Research Methods I and II
- 65.797 Master's Thesis Seminar (3-6 credits)

Written Comprehensive Examinations

Two are required, one in sociological theory and one in methods of social research.

Other Requirements

At least one course above the introductory level in statistics or a departmental proficiency examination in statistics. Thesis and oral defense of thesis.

Doctor of Philosophy

Course Requirements

See page 26 for basic requirements.

A minimum of 72 hours of approved graduate work is required including 65.799 Doctoral Dissertation Seminar.

Advancement to candidacy is required between the 12th and 18th hours. The student must have a better than 2.00 average.

Other Requirements

Four courses are required, including one in sociological theory, one in methods of social research, one in complex organizations, and a fourth field selected from comparative social organization, social psychology (sociological) or a field approved by the department.

Written Comprehensive Examinations

A proficiency examination is required in two tools of research (German or French, and statistics). A dissertation and its oral defense is required.

Graduate Comprehensive Examination Fields*Core Fields*

- 65.001 Sociological Theory (M.A., Ph.D.)
- 65.002 Methods of Social Research (M.A., Ph.D.)
- 65.015 Complex Organizations (Ph.D. only)

Specialized Fields

- 65.016 Comparative Social Organization (Ph.D. only)
 - 65.024 Social Psychology: Sociological (Ph.D. only)
- A comprehensive field approved by the department.

Speech Arts

Correspondence Directory: JEROME B. POLISKY, *Chairman*

Fields of Study

Speech Communication, Theatre, Speech Education

Full-time Faculty

Professor: F. Cowles Strickland

Associate Professor: Jerome B. Polisky, J. A. Hendrix

Assistant Professor: Kenneth Baker, Boris I. Baranovic, Nicholas Howey, Herbert R. Voss, Joanne Yamauchi, Bruce Zortman

Undergraduate Degree

Bachelor of Arts and Bachelor of Science

Admission to the Major

The department counsels freshmen and transfer students. Students are formally admitted to the major when they present a 1.30 grade point average and a 1.50 average in major courses.

University Requirements——See page 24.

Language Requirement

Minimum CAS Requirement. See page 46.

Department Requirements*Theatre Emphasis:*

- 67.124-125 Survey of Theatre I and II
- 67.300-301 Introduction to Technical Theatre I and II
- Eight additional courses determined through departmental counseling

Speech Communication Emphasis:

- 67.150 Argumentation
- Seven additional courses determined through departmental counseling.

Related Field:

Four courses required.

Theatre and Forensic Programs

The Department of Speech Arts expects all majors to participate actively in the theatre and/or forensic programs of the department.

Electives

To complete a minimum of 32 courses.

Graduate Degree

Master of Arts

Areas of Concentration

Graduate students may concentrate in theatre, speech communication or speech education.

Course Requirements

Minimum of 30 hours of approved graduate work including 67.062 Research Seminar in Speech Arts (3 hours) and 67.797 Master's Thesis Seminar (3-6 hours), or 67.798 Non-Thesis Option Seminar (6 hours).

Comprehensive Examinations

Two examinations are required including one exam in a core field and one exam in a specialized field. Core field exams must be taken in the Department of Speech Arts. Specialized field exams may be in the Department of Speech Arts or in an appropriate related field of another department. All speech arts exams will be administered by the department. Candidates will check with the department chairman concerning the scheduling of examinations.

Core Fields

- 67.001 Speech Communication
- 67.002 Theatre
- 67.010 Speech Education

Specialized Fields

- 67.011 Rhetorical Communication
- 67.012 Public Address
- 67.020 Theatre History
- 67.021 Theatre Production
- 67.005 History and Philosophy of Speech Education

Thesis and Non-Thesis Option

All candidates for the M.A. degree in speech arts are required to complete a thesis or non-thesis option project. The student who elects the non-thesis option may (1) complete two research papers or (2) complete one research paper and a "creative" or "production" study in theatre. All production studies must be accompanied by a suitable written defense of the project.

Graduate students in the speech communication area are expected to write a thesis.

M.A. in Communication Research

An M.A. in communication research can be arranged through the Office of Interdisciplinary Studies by combining study in the Department of Speech Arts and the Department of Communication. Core courses for the interdisciplinary major are as follows:

- 67.580 Small Group Communication
- 17.601 Experimental Research in Communication
- 17.760 Methodology of Communication Research

School of Business Administration

Correspondence Directory: EDWIN G. CAUDILL, *Acting Dean*
NIKOS G. PHOTIAS, *Associate Dean for Doctoral Program*
JAMES OWENS, *Assistant Dean for Undergraduate Program*
HAROLD F. SYLVESTER, *Assistant Dean for Masters' Programs*

Fields of Study

Accounting, advertising, banking, business-government relations, business law, church management, computer systems, financial management, industrial relations, insurance, international business, investments, management, management information systems, managerial (business) economics, marketing, operations analysis (management science), operations research, personnel and manpower management, production (industrial) management, public relations in business, real estate and urban planning, research and development management, transportation, logistics, and traffic management.

Full-time Faculty:

Professor: Nathan A. Baily, Orton W. Boyd (Emeritus), Marvin L. Fair (Emeritus), Herbert Glazer, Joseph E. Hampton, Elcanon Isaacs (Emeritus), Edward R. Lehman, Howe Martyn, Nikos G. Photias, Myles E. Robinson, Kenn Rogers, Maurice Seldin, John H. Smith, Herbert E. Striner, Harold F. Sylvester

Associate Professor: Lincoln Armstrong, Charles I. Bartfeld, Kirk L. Burns, James H. H. Carrington, Edwin G. Caudill, Herschel Cutler, William C. Dulin, William Evans S. Flory, Frank L. Holloway, Laura L. Karadibil, Gangadhar S. Korr, James Owens, Harry Rosenthal, Michael Sumichrast, Harry J. Wheaton

Assistant Professor: James Butts, Guy Douyon, Filemon C. Flores, Ronald Hugh Gorman, Rembert C. Houser, H. Joseph Levine, Robert W. Miller

Instructor: John Kokus, Jr., Conway Lee Lackman, Raymond Lewis, Zachariah Mathew, James C. Scharf

Undergraduate Degrees

The undergraduate curriculum combines liberal arts, general education in business administration, and limited professional specialization.

Admission

See page 13.

University Requirements—See page 24.

Associate Degree in Business Administration

This degree is used largely by part-time students to mark approximately "half-way" progress toward the bachelor's degree toward which all credits satisfactorily completed apply. Earning it in the minimum of 16 courses, however, involves going out of the "ideal" sequence for the bachelor's degree. A minimum average of "C" is required.

Limited concentrations are offered in general business and in accounting.

Bachelor of Science in Business Administration

This degree requires a minimum of thirty-two courses with at least a "C" overall average and at least a "C" grade in each course in the major. The breakdown of required courses is as follows:

Category 1—School Requirements (Fourteen courses):

General studies in basic areas of knowledge for broad, rounded education and as foundations. Designed to strengthen basic skills, provide background of knowledge whereby students can move easily in the world of ideas, and increase appreciation of values of our society.

Composition and Reading (2)

Economics (2)

Psychology (1)

Mathematics (1)

Statistics (1)

Mathematics/Statistics (1)

Computers (1)

Electives (5) including

History/Humanities (1)

Natural Science (1)

Category 2—Core Requirements—Business Administration (Nine courses)

Fundamental management tools, exposure to basic areas of business. Common core of broad, thorough foundation for all business students.

Accounting

Business Policy

Employee Relations

Finance

Law

Marketing

Private Enterprise and Public Policy

Process of Management

Quantitative Methods in Decision Making

Category 3—Major (Five to seven courses)

The major, an organized series of related courses, provides limited specialized competence. This major, like a major in any other school in the University, is the student's exploration in depth and shows his ability to master an integrated curriculum. The available majors are listed below.

Students without specifically defined career interests major in general business. All full-time students take the same courses for the first two years, at the end of which they may shift majors without loss of credits. Changing majors later than the beginning of the junior year can mean added courses.

The major must be officially selected (or confirmed) before registration for the first session of the junior year. Forms must be acquired from and filed in the Office of Assistant Dean, Undergraduate Program, and in the Office of the Registrar.

Category 4—Electives (Four courses)

Unless required by the major, two courses must be in business administration. The other two may be chosen from any area of the University. Superior students may use electives for the integrated bachelor/master's program (see page 110). Many use electives for a second concentration closely related to their major, e.g., accounting for finance majors, marketing for transportation majors, etc. Students may register for additional courses, by utilizing summer and intersession offerings, to strengthen their career preparation and increase subsequent career opportunities.

The Majors

GENERAL BUSINESS

This major, rather than providing specialization in one area, consists of fundamental courses from the basic fields which provide a broad foundation for management development.

By using electives, students can supplement one or more areas and increase both depth of background and flexibility of qualifications for various kinds of careers.

ACCOUNTING

An integrated education for students preparing for the CPA examination or for careers in industrial accounting, governmental service, or related fields such as law or management. Courses provide both technical competence in accounting theory and procedures and an understanding of the significance of accounting information and its role in operational planning and control.

Students seeking the CPA should check specific requirements of their State and discuss programs with their advisor.

BUSINESS AND ECONOMICS

This major is identical with the economics major in the Economics Department of the College of Arts and Sciences. Satisfactory completion of either program enables graduates who qualify for admission to complete either the M.B.A. or M.A. in economics in one, rather than two years of full-time study or the equivalent in part-time study. By taking this economics major within the framework of the B.S.B.A., students include in their curriculum an educational background of great advantage for business-oriented practice or teaching of economics.

COMPUTER SYSTEMS

Automatic data processing provides a field where background in computers can be coupled with any specialized area of business to great personal advantage.

FINANCE

The *Financial Management* concentration provides more intensive knowledge of and ability to utilize the institutions, procedures, and strategies of financial management.

The concentration in *Investments* contributes to competence in careers as financial and investment analysts, investment advisors, securities brokers, and registered representatives.

With the cooperation of the American Institute of Banking, *Commercial Banking* offers the opportunity to combine work experience with the educational resources of both organized banking and the Finance Program.

INDUSTRIAL RELATIONS, PERSONNEL, AND MANPOWER MANAGEMENT

For any organization to function effectively, its executives must be well qualified in managing human resources.

Personnel Management covers principles of recruitment, selection, training, supervision, motivation, compensation. Courses stress philosophy and rationale rather than mechanics and techniques.

Industrial Relations is concerned largely with union-management relations. Courses emphasize collective bargaining from the viewpoint of management's complex problems and in the context of total operations.

INTERNATIONAL BUSINESS

This pioneering and distinctive program provides understanding of the international ramifications which so greatly affect business, economics, and politics.

MARKETING

Marketing's critical role in profitable operations, its significance for economic growth, ever-sharpening competition between firms, industries and countries, and the subsequent emergence of a profession of marketing create a wide variety of challenging career opportunities for "creating" customers and improving the living standards of all people.

PRE-LAW

This major provides a strong base and a competitive advantage for a successful legal career.

PRODUCTION (INDUSTRIAL) MANAGEMENT

Production functions are studied as individual and related manufacturing processes and as a total integrated operation in relation to the other major functional areas. The impact of technology on the production process is examined, evaluated, and projected. Production decision-making factors, internal and external to the firm, are emphasized.

REAL ESTATE AND URBAN DEVELOPMENT

Washington is one of the world's greatest laboratories in real estate and construction and the School offers one of the country's most complete programs.

Sequences in appraisal and property management are officially accepted toward professional designations.

STATISTICS

Statistical methods are increasingly used in managerial decisions. This major provides competence in both the quantitative tools and in the skills and backgrounds of the general executive who is the primary consumer of statistical analyses.

TRANSPORTATION, LOGISTICS, AND TRAFFIC MANAGEMENT

This program combines education in transportation with business administration and marketing management.

Washington is the center of government activities relating to all modes of transportation. Resource materials for study abound and transportation agencies and carrier associations provide opportunities for part-time employment while in school and full-time employment after graduation.

INTERDISCIPLINARY STUDY

In accordance with University regulations, students may propose a major built around a central theme that cuts across the various business disciplines.

Combined B.S.B.A./M.B.A.

Increasingly, the Master of Business Administration degree is prerequisite to professional positions. To facilitate superior undergraduates, an integrated course of study begins with the junior year and leads to the M.B.A. A student approved by this program may—

- a. Tentatively select in his junior year his elective M.B.A. comprehensive field and plan major and electives accordingly.
- b. Apply toward M.B.A. credits earned satisfactorily in graduate level courses taken during senior year in excess of hours needed and not used to meet specific course requirements for B.S.B.A.
- c. Be advanced to candidacy for M.B.A. upon entering his year of graduate study, if his average is "B" or better in his major.
- d. Complete all work for the M.B.A. in one year.

Superior junior college graduates admitted to the School may thus complete both B.S.B.A. and M.B.A. in three years rather than four.

Course Sequence Sheet

A basic responsibility of each student is registering properly each semester. He must meet prerequisites and requirements for degree and major, avoid conflicts of required courses and meet other requirements.

Each undergraduate receives a *Course Sequence Sheet*, an "ideal" semester by semester schedule which brings together and coordinates school and major requirements. This is his major planning and scheduling tool.

Admission to the Undergraduate Program

See page 13 for specific details.

Submit application and credentials to Director of Admissions, The American University, Washington, D.C. 20016.

Application may be made for fall or spring semesters.

Advanced Standing for CPA's, Members of the Bar, A.I.B. Students

CPA's or members of the Bar may receive transfer credit. Consult the Office of the

Dean for details. Credit may be awarded for satisfactorily completed American Institute of Banking courses.

High School Background

The school recommends as much English, history, social science, and public speaking as possible and three or four years of mathematics and a foreign language. Extra-curricular activity in debating, writing, and on business staffs of publications and part-time and/or summer employment in business will be helpful.

Superior Students

Recognizing that students enter with different levels of ability and varying degrees of proficiency, the University has special programs whereby *superior students* substitute advanced courses for basic courses and/or enter with advanced standing (if sufficient, they may earn both B.S.B.A. and M.B.A. in the time normal for the former alone).

ADVANCED ADMISSION—From junior year of high school.

WAIVER EXAMINATIONS—Electives in place of basic courses.

ADVANCED PLACEMENT—Placement in advanced courses.

ADVANCED STANDING—College credit for high school courses.

Graduate Degrees

Admission

See page 17.

Application may be made for any fall, spring or summer session. *Note:* The *Admission Test for Graduate Study in Business* scores must be provided.

If an applicant has missed the University deadline for admission to degree status, he may: (1) apply for admission to the College of Continuing Education; (2) be counselled by the School of Business Administration as well; and (3) apply for admission to degree status for the following session. No more than 12 credits of second year courses may be transferred from non-degree status.

The Admission Test for Graduate Study in Business

Used as an admissions criterion by the leading graduate schools of business administration, the test is offered four times a year in various locations. Applications should be received by Educational Testing Service no later than two weeks before date of test for examinations in U.S. and its territories or Canada. For candidates tested in other countries, the registration deadline is one month before test.

The *Bulletin of Information for Candidates* is available from the Educational Testing Service, Box 966, Princeton, New Jersey 08540. The ATGSB is *not* designed to test specific knowledge in business administration. It seeks to measure *aptitude* for, not knowledge of, business administration by seeing whether candidates can understand and use words and numbers and reason effectively. Normal undergraduate education should provide sufficient general knowledge to deal adequately with test questions.

Applicants for the fall semester should take test in February or April; and for spring, in July or November.

In unusual circumstances, applicants unable to take test before registration may be permitted to enroll. If previous academic performance is sufficiently high, applicants may be admitted with good standing contingent upon earning a satisfactory score within 3 months following registration. Otherwise, they should apply for admission to the College of Continuing Education until they can present a satisfactory score as part of their credentials for admission to the School of Business.

Letters of recommendation and/or evidence of professional attainment may be submitted in support of M.B.A. applications. Ph.D. applicants *must* have letters of recommendation submitted from two of their former professors.

In exceptional cases, applicants not meeting these qualifications may be considered on the basis of *superior* scores on the *Admission Test for Graduate Study in Business*.

Master of Business Administration

The M.B.A. degree builds upon a common foundation: either an undergraduate business major or, by class performance or examination, demonstrated mastery of fundamental tools and concepts of First Year Basic Requirements courses. By completing these First Year courses, students who did not major in business receive a foundation for advanced study.

Course Requirements

Without "advanced standing," two academic years of full-time study are required (54 credits or 18 courses). The length of part-time study depends upon number of courses carried per semester and registration in summers.

ADVANCED STANDING may be received for: (1) previous satisfactory completion of First Year Basic Requirements courses or equivalents or by passing *Waiver Examinations*, and (2) transfer from other accredited graduate or law schools of up to 6 credits* of appropriate Second Year Advanced Requirements courses of at least "B" grades. Generally, undergraduate business majors can complete the M.B.A. degree in 30-36 credits (10 to 12 courses).

Newly entering students are required to demonstrate basic competence in utilizing computers by the end of their second session. Special courses provide the opportunity to acquire a minimal proficiency in understanding and use of computers.

FIRST YEAR BASIC REQUIREMENTS COURSES: A "core" of 24 credits (eight courses) that provides, despite differing undergraduate majors, common, balanced foundation of competence in primary "tool" areas is the prerequisite to advanced study. *All First Year Basic Requirements courses must be completed satisfactorily before advancement to candidacy.*

These courses are:

- 10.400 Use of Accounting Information (3)
- 10.401 Legal Environment of Business (3)
- 69.400 Managerial Statistics (3)
- 10.442 (formerly 19.310) Introduction to Business Economics (3)
- 10.456 Process of Management (3)
- 10.457 Quantitative Methods in Decision Making (3) (may also require 10.057)
- 10.465 Business Finance I
- 11.300 Marketing I

In addition, students, particularly from other countries, whose total academic backgrounds are not considered adequate, will be required to take 10.481 Principles of Production, and/or 10.491 Personnel and Manpower Management, and/or 10.458 Business Policy.

Waiver Examinations

Waiver Examinations have been developed for students: (1) without formal education, but with strong career backgrounds and/or self-study in the areas of the first year basic requirements courses, and (2) who have completed satisfactorily in previous study similar, but not necessarily equivalent, courses.

To be eligible for *Waiver Examinations*, applications must be filed in the M.B.A. or Ph.D. Office within 6 months following date of the first registration as a degree candidate. If application is approved, *Waiver Examinations* must be taken within one calendar year following that date of registration.

A student who registers for a first year basic requirement course at The American University and does not receive at least a "C" grade, may *not* apply for a *Waiver Examination*, but must re-register for that course.

SECOND YEAR ADVANCED REQUIREMENTS Courses: Minimum of 30 credits (10 courses) in "500" and above, with an overall average of at least "B" in American University courses, including at least "B" average in elective field, and 6 credits (two courses) of at least "B" in 10.756, 10.757, or 10.758. At least 24 credits (eight courses), including seminars meeting the non-thesis option requirement, must be taken in residence.

MANAGEMENT: 10.642 Managerial Economics (3); 10.656 Design of Organizations (3); 10.657 Planning—Programming—Budgeting (3); 10.756, 10.757 Seminars in Policy Formation I and II (6); 10.758 Seminar in Human Relations I (3).

ELECTIVE FIELD: At least 12 credits (4 courses) in "500" or above courses, generally at least 6 credits (2 courses) in "600" or above courses including at least one seminar.

* 12 toward the Ph D

Comprehensive Examination Fields

After completion of or in last semester of completing all required courses, candidates must take two written comprehensive examinations:

10.001 Management (core field); and one elective field from the following list of fields (or other interdisciplinary field approved by the Director of the M.B.A. program):

- 10.010 Accounting
- 10.030 Advertising
- 10.013 Banking and Financial Institution Management
- 10.014 Business Education
- 10.015 Business-Government Relations
- 10.037 Business Logistics
- 10.016 Business Statistics
- 10.033 Church Management
- 10.017 Financial Management (including Business and Corporation Finance)
- 10.019 Industrial (including Personnel) Psychology
- 10.20A Industrial Relations
- 10.021 Institutional Management (including Hospital Administration)
- 10.22A Insurance, Life
- 10.22B Insurance, Property and Casualty
- 10.023 International Business
- 10.024 Investment Analysis (including Investment Banking)
- 10.036 Land Planning and Use
- 10.035 Legal Aspects of Business* *
- 10.002 Managerial (Business) Economics
- 10.025 Marketing
- 10.026 Operations Analysis (Management Science)
- 10.20B Personnel Management in Business
- 10.018 Production (Industrial) Management
- 10.027 Public Relations in Business
- 10.034 Purchasing (including Procurement and Materials Management)
- 10.028 Real Estate
- 10.029 Retailing
- 10.032 Transportation (including Traffic Management)
- 10.033 Urban Transportation

NOTE: Candidates interested in elective field from *Technology of Management* (computer systems, management information systems, operations research, R and D management) should consult the Director of the Operations Analysis Program and Center of Technology in the College of Continuing Education. * * *

To be eligible for the two comprehensive examinations, taken as a unit in a given semester, students must have completed satisfactorily all First Year Basic Requirements courses, been advanced to candidacy, have at least a "B" average in graduate studies, have approval of appropriate program directors, as well as the M.B.A. Director, and have completed or be in the final session of completing all required course credits.

Separate applications must be made for advancement to candidacy and for admission to comprehensive examinations. (Deadline for latter is announced in calendar of respective fall, spring or summer *Schedule of Classes* publication.) Applications must be approved by Director of M.B.A. Program, stamped by Office of Student Accounts which will forward them to the Office of Graduate Studies and Research.

A candidate who fails to pass both comprehensive examinations as a unit may request permission to retake 10.001 Management and the same or another elective Field (if adequately prepared for the latter). If he passed one examination with at least one grade of distinction, he may be excused from repeating that examination. He may be required to take additional course work to strengthen his background. *A candidate who fails twice 10.001 Management or who fails a second attempt at any other examination is automatically dismissed from the School.*

* * See page 110 for advanced standing for holders of the LL.B. degree enrolled in the M.B.A. Program.

* * * This program is undergoing major revisions. Present and incoming students electing these fields will be permitted to transfer to new fields being developed by SBA in this area or complete the original option within a limited period of time.

Maintaining Matriculation

See page 29.

Continuous Study

Any degree candidate, full-time or part-time, who has not completed course requirements and who has been out of attendance for two consecutive sessions (excluding summer), must meet all degree requirements prevailing when he returns. A degree candidate who does not register for classes or graduate study for one or more years and wishes to return will be considered as applying for new admission.

Transferability of Credits Taken at Military Institutions

Regionally accredited military institutions (e.g., U.S. Naval Post-Graduate School at Monterey) are treated as other regionally accredited institutions. Six graduate credits, where appropriate to student's program, may be transferred toward either M.B.A. or Ph.D. from the National War College, Industrial College of the Armed Forces, Army War College, Navy War College, Air War College, and Foreign Area Specialist Training Program (Soviet Union, Detachment "R" Oberammergau).

Credits may be transferred only for the full course in residence and for the three service colleges (Army, Navy, and Air Force), the senior course only, if a distinction is made between that course and others.

Advancement to Candidacy

Admission to graduate study does not automatically mean advancement to candidacy for the M.B.A. degree. Each is a separate step in the student's progress toward the degree.

At advancement, approval of the elective comprehensive field is sought and an appropriate form filed with the director of the M.B.A. program. Advanced standing for previous appropriate graduate study is officially granted at advancement.

Advancement to candidacy has *no connection with admission to the comprehensive examinations*. The candidate must apply for the latter (before the deadline dates—announced in the *Schedule of Classes* publication) by filing the proper application form, and paying the required fee.

Students *may* apply for advancement to candidacy when they have completed the first 12 credits of second year advanced requirements courses (with an average of "B" or better) and have completed satisfactorily all first year basic requirements. This application *must* be made no later than the completion of 18 credits of second year courses. If at this time a student's average is less than "B", he may be dismissed from the University. He may also be dismissed if the grade average falls below the minimum requirement at any time thereafter.

Statute of Limitations

All M.B.A. degree requirements are expected to be completed within three years from the date of first enrollment in the degree program. If not completed within that period, the student must petition for re-admission if he wishes to continue. *Effect of Undergraduate Prerequisite*: The Statute of Limitations may be extended in the proportion that the prerequisite requirements bear to the 30 hours required on the graduate level. The maximum is two and one half years and applies only to students whose prerequisites total 24 hours.

Counseling

General inquiries and initial and general counseling are by the Director of the M.B.A. Program. Counseling for preparation for comprehensive examinations is available from the appropriate program director or his representative. Each student develops with his counselors an "M.B.A. Planning Record" which provides an overall schedule and indicates progress toward completing requirements.

MODEL M.B.A. SCHEDULE

For full-time students *without* advanced standing

SESSION I (12-15 credits)

- 10.400 Use of Accounting Information (3)
- 69.400 Managerial Statistics (3)
- 10.442 Introduction to Business Economics (3)
- 10.456 Process of Management
- 10.401 Legal Environment of Business (3)

SESSION II (15 credits)

- 11.300 Marketing I
- 10.457 Quantitative Methods in Decision Making
- 10.465 Business Finance I
- 10.401 Legal Environment of Business (3) *or*, if taken in Session I, 10.642 Managerial Economics (3)
- Course 1 in Elective Field (3)

SESSION III (12-15 credits)

- 10.756 Seminar in Policy Formulation I (3)
- 10.758 Seminar in Human Relations I (3)
- Course 2 in Elective Field (3)
- Course 3 in Elective Field (3)
- 10.642 Managerial Economics (3) (if not completed in Session II)

NOTE: Application for *Advancement to Candidacy* must be made on the completion of 12-18 credits of second year courses.

SESSION IV (12 credits)

- 10.657 Planning-Programming-Budgeting (3)
- 10.757 Seminar in Policy Formulation II (3)
- 10.656 Design of Organizations (3)
- Course 4 (Seminar) in Elective Field (3)

NOTE: Comprehensive examinations (offered each fall, spring, and summer) may be taken this session by very well prepared candidates. Others should take them in the next session, utilizing the time interval for thorough preparation.

MASTER OF SCIENCE DEGREES

Admission

Admission requirements, including the required *Test for Admission to Graduate Study in Business*, are the same as for the M.B.A. program. See page 17.

Comprehensive Examination

One comprehensive examination taken upon completion or in the last semester of registration for required courses.

Master of Science in Employee Relations (Industrial Relations and Personnel Management)

First Year Courses

- 10.400 Use of Accounting Information (3)
- 10.442 Introduction to Business Economics (3)
- 10.456 Process of Management
- 57.210 Introductory Psychology: Behavioral Principles
- 69.202 Basic Statistics
- 69.301 Psychological Statistics
- 10.491 Principles of Employee Relations
- 10.493 Personnel Management Operations

These may be met by taking the above courses at The American University, by completion of their equivalents with a minimum grade of "C" at other accredited institutions, or by *Waiver Examination*. It is also highly recommended that the student have some knowledge of the computer applications to management problems. This knowledge may be acquired through work experience or by participation in a non-credit course, given from time to time by the School of Business Administration

Second Year Courses

- 10.758 Seminar in Human Relations I (3)
- 10.656 Design of Organizations (3)
- 10.595 Training and Education in Industry (3)
- 10.596 Industrial Relations: The Legal Environment (3)
- 10.597 Labor Relations Management (3)

10.791 Seminar: Personnel & Manpower Management (3)

10.792 Seminar in Industrial Relations (3)

10.795 Seminar in Manpower Management (3)

and two of the following three:

10.692 Collective Bargaining and the Public Interest (3)

54.650 Principles of Public Personnel Administration (3)

54.654 The Labor Relations of Public Employment (3)

or two major-related courses chosen by student in consultation with the program director.

Where the student has previously taken required courses or equivalents in his undergraduate program, independent research courses, or other suitable courses may be substituted with approval of the program director.

No thesis required, but a minimum grade of "B" must be earned in *at least two of the three* seminars: 10.791, 10.792, 10.795.

Students earning this degree can currently earn the M.B.A. by satisfactorily completing four additional First Year prerequisites, the additional management courses required, and by passing the M.B.A. management comprehensive examination.

Master of Science in Real Estate and Urban Development Planning

First Year Courses

69.400 Managerial Statistics (3) or one year of undergraduate statistics

10.400 Use of Accounting Information (3) or one year of undergraduate accounting

10.442 Introduction to Business Economics (3) or one year of undergraduate economics

10.456 Process of Management

10.457 Quantitative Methods in Decision Making

10.578 Real Estate Law (3) or 10.401 Legal Environment of Business, (3), or one year of undergraduate business law

11.570 Urban Development Systems or approved substitute (3)

11.584 Mortgage Banking (3)

Second Year Courses

10.657 Planning-Programming-Budgeting (3)

10.758 Seminar in Human Relations I (3)

11.579 Home Building (3), or 11.580. Apartment Construction (3), or 31.504 Institute in Real Estate Appraisal I (3)

11.683 Real Estate Market Analysis (3)

11.685 Land Planning and Use (3)

11.776 Seminar in Real Estate Administration (3)

11.778 Seminar in Land Planning and Use (3)

11.779 Seminar in Housing and Urban Development (3)

12.572 Urban Transportation (3) or 53.684, Urban Planning (3), or 53.681, Metropolitan Growth Analysis (3)

31.501 Property Management II (3) or 31.505, Real Estate Appraisal II (3)

No thesis is required, but a minimum grade of "B" must be earned in *at least two* of the three Seminars: 11.776, 11.778, 11.779

Students earning this degree can currently earn the M.B.A. by satisfactorily completing two additional First Year prerequisites and the additional management courses required, and passing the M.B.A. management comprehensive examination.

Master of Science in Urban Transportation

First Year Courses

69.400 Managerial Statistics (3) or one year of undergraduate statistics

10.400 Use of Accounting Information (3) or one year of undergraduate accounting

10.442 Introduction to Business Economics (3) or one year of undergraduate economics

10.456 Process of Management

10.457 Quantitative Methods in Decision Making

- 10.465 Business Finance I
- 11.300 Marketing I
- 12.562 Theory and Regulation of Transportation (3)

Second Year Courses

- 12.572 Urban Transportation (3)
- 12.664 Management of Urban Transportation (3)
- 12.764 Seminar in Urban Transportation (3)
- 11.685 Land Planning and Use (3)
- 12.672 Seminar in Legal Problems of Urban Transportation (3)
- 10.657 Planning-Programming-Budgeting (3)
- 11.502 Consumer Marketing Research (3) *or* CEM-552 Traffic Engineering *
- 53.683 Urban Politics (3)
- 53.684 Urban Planning (3) *or* CEM-551 Traffic Engineering *

and

Approved graduate course in Business Administration or related discipline.

No thesis is required, but a minimum grade of "B" must be earned in *both* seminars: 12.764 and 12.672.

Students earning this degree can currently earn the M.B.A. by satisfactorily completing one additional First Year prerequisite and the additional management courses required, and passing the M.B.A. management comprehensive examination.

Doctor of Philosophy in Business Administration and Doctor of Philosophy in Business Administration : Technology of Management

Admission

Admission is based on superior academic performance and personal qualities, generally including previous completion of a master's degree. Admission to the Ph.D. degree program is separate from admission to a master's degree, whether the master's degree is from The American University or elsewhere. Applicants for the Ph.D. must earn *satisfactory* scores on the *Admission Test for Graduate Study in Business*. Applicants who previously earned such scores need not take the test again. See page 17.

Course and Seminar Requirements

Candidates must complete a minimum of 66 graduate credits (22 graduate courses, plus 6 credits of Dissertation Seminar), with better than a "B" average.

I. BASIC REQUIREMENTS COURSES: All First Year Basic Requirements M.B.A. courses are required. Requirements may be met by previous satisfactory completion, by passing *Waiver Examination* (see page 112), or by passing such courses as part of the Ph.D. program.

II. TOOLS OF RESEARCH: Accounting and statistics are required (unless a foreign language or mathematics is approved partially in lieu of statistics). Non-language tools may be satisfied by examination or by certification based on satisfactory completion of appropriate courses. Candidates must complete *both* tools before advancement to candidacy.

III. MANAGEMENT:

- 10.656 Design of Organizations (3)
- 10.657 Planning-Programming-Budgeting (3)
- 10.756, 10.757 Seminars in Policy Formulation and Administration I and II (6)
- 10.758 Seminar in Human Relations I (3)
- 10.760 Doctoral Seminar in Management Literature (3)
- 10.761 Seminar in Philosophy of Management

IV. MANAGERIAL ANALYSIS (BUSINESS ECONOMICS):

- 10.542 Foundations of Business Forecasting (3)
- 10.642 Managerial Economics (3)
- 10.643 Managerial Analysis (3)

* Option open to students with adequate engineering background. These courses are offered at Catholic University

10.742 Seminar in Managerial Analysis (3)

10.743 Doctoral Seminar in Managerial Analysis Literature (3)

V. DISSERTATION SEMINAR: (6)

VI. ELECTIVE COURSES: Balance of required credits in "500" and above courses, generally including at least two seminars and, where offered, the doctoral literature seminar in each elective field. At least 54 of the 66 hours must be in fields of the comprehensive examinations.

(Note: All the above and other appropriate courses satisfactorily completed for the M.B.A. may be applied to the Ph.D. requirements.)

Comprehensive Examination Fields

VII. REQUIRED COMPREHENSIVE EXAMINATIONS:

11.001 Business Management

11.002 Managerial Analysis, and two elective fields (one of which may be outside of Business Administration), with approval of director of doctoral program.

VIII. ELECTIVE COMPREHENSIVE FIELDS:

11.030 Accounting

11.032 Business-Government Relations

11.034 Business Finance

11.036 Industrial Relations & Personnel Management

11.038 International Business

11.039 Land Planning and Use

11.040 Marketing

11.042 Production (Industrial) Management

11.044 Public Relations in Business

11.046 Real Estate

11.048 Transportation & Physical Distribution

11.049 Operations Analysis (Management Science)

11.050 Computer Systems*

11.052 Operations Research*

11.054 Research & Development Management*

11.056 Management Information Systems*

11.058 Systems for Scientific & Technical Information*

Note: Doctoral candidates wishing to earn the degree of *Ph.D. in Business Administration: Technology of Management*, select two fields from 11.049, 11.050, 11.052, 11.054, 11.056, 11.058.

Separate applications must be made for advancement and for admission to comprehensives. Applications for latter must be signed by Associate Dean, Ph.D. Program, stamped by Office of Student Accounts which forwards them to the office of Dean of Graduate Studies, not later than final dates listed in the respective fall or spring *Schedule of Classes*.

Dissertation Requirements

Candidates must successfully defend at an oral examination a dissertation approved by the Dissertation Advisory Committee as reflecting an original contribution to the established body of knowledge in the selected field.

Advancement to Candidacy

Admission to a doctoral degree program does not automatically mean advancement to candidacy for a doctoral degree. Each is a separate step, and advancement is a discretionary act; various requirements may be set up in the best judgment of the School.

The student proposes his elective comprehensive fields in filing his application for advancement to candidacy.

Doctoral degree students who have completed 30 credits of graduate work, including the master's program if this degree has been secured, and at least 15 additional credits in residence at the University, may apply for advancement to candidacy if their grade average in all graduate work taken at the University is better than "B". Application *must* be made not later than the end of the semester in which 18 credits of graduate work will have been com-

* This field is undergoing major revision. Present and incoming students electing it will be permitted to transfer to new fields being developed by SBA in this area, or complete the original option within a limited period of time.

pleted in residence at the University, subsequent to admission to the doctoral program. If a student is ineligible for advancement at that time, his work at the University may be terminated. It may also be terminated if the grade average falls below the minimum requirement at any time thereafter.

If the master's degree has been received at the University, a doctoral degree student may apply for advancement to candidacy after completing 12 graduate credits beyond the master's degree but must apply no later than the end of the Semester in which 18 credits of graduate work will have been completed beyond the Master's degree.

Transfer Credit

Transfer credit for prior work satisfactorily completed at other institutions is usually at time of advancement to candidacy. In order to be transferred, credits earned elsewhere must be graduate level courses taken after the student received the bachelor's degree, and they must be judged appropriate to his degree program.

Statute of Limitations

All degree requirements must be completed within five years from date of first registration as a doctoral student (if the student entered with a master's degree). If not completed, the student must petition for readmission if he wishes to continue.

Student Guide

A detailed guide has been published by the Doctoral Association of the School of Business Administration.

Special Programs

Combined Business-Law Degrees Programs

Practicing lawyers and law schools increasingly recommend business administration and accounting as advantageous backgrounds or supplements for legal studies. The lawyer with a business or accounting background can more effectively resolve the problems of businessmen-clients, is far better qualified for such specializations as corporation or tax law, and is better equipped to move to positions of managerial responsibility.

M.B.A.-LL.B. or J.D.: Work beyond the first year at accredited law schools may be given graduate credit if both are relevant to a degree program and earned with at least "B" grades. University residence and specific course requirements must be fully met. Qualified graduates of the University's Washington College of Law receive advanced standing of up to 12 credits, toward the 30, of Second Year M.B.A. courses at the "500" and higher level. Graduates of other accredited law schools transfer 6 credits of "B" or better toward the 30. Both also receive credit for 10.401 Legal Environment of Business. Either *Legal Aspects of Business* or *Business-Government Relations* generally serves as the elective comprehensive examination under this special Program.

The School of Business Administration and the Washington College of Law are currently preparing a combined M.B.A.-J.D. degree program that can be completed in four, rather than five, years of full-time study or the equivalent in part-time study.

Attorneys thus supplement legal backgrounds with a thorough education in business fundamentals (M.B.A. First Year Courses), in advanced study in management (the area of administration), and in the interrelations of law and business.

Preparation For Careers in the Foreign Service

To meet the increasing need for Foreign Service Officers with a thorough education in business, the Junior Foreign Service Officer Examination now includes in Part 2 of the General Background Test, *Option B: Management and Business Administration*. This calls for an understanding of the more advanced concepts of executive management, business administration, foreign commerce, and international marketing.

The School recommends as effective educational preparation the B.S.B.A. with a major in international business and as electives, a foreign language. Students preferring to major in finance, marketing, or industrial relations and personnel management should use electives for international business and a foreign language.

The M.B.A. provides a higher-level education in executive management. International business or other relevant fields may be used as the elective comprehensive examination.

Career Opportunities in the Bureau of International Commerce

International business, marketing, and finance, with electives selected as in the Foreign Service Officer examination (see above), are recommended for educational preparation for appointments as business or trade specialists. The Bureau uses the Federal Service Entrance Examination (FSEE) to fill most initial appointments. For further information, write Bureau's Personnel Division (Washington, D. C. 20230).

Certificate Programs

EXECUTIVE CERTIFICATE PROGRAM—This program is for mature men and women with substantial executive experience who have not had an opportunity to earn a bachelor's degree, do not meet requirements for direct admission to M.B.A., and have not had more than 30 hours of previous college study. Application is by letter (accompanied by complete resume of education and experience). Admission is highly selective, limited to those: (a) at least 35 years old; (b) with a minimum of five years of executive experience; (c) recommended by head of business firm or government agency or commanding officer, if in military; (d) earning satisfactory scores on *Admission Test for Graduate Study in Business* (see page 00); and (e) with experience equivalent to an undergraduate business major and which indicates ability to complete satisfactorily advanced study.

Executive Certificates will be awarded in areas of M.B.A. comprehensive fields (see page 00), where applicant completes with at least "B" average 12 credits in M.B.A. First Year Basic Requirements courses (unless waived on basis of examinations), 12 credits in area of specialization, and 6 credits from the management area. An applicant may receive more than one *Executive Certificate* by completing with at least "B" average an additional 6 credits of first year or other prerequisites (unless waived by examination), 3 credits from management, and 12 credits in additional area of specialization for each certificate beyond the first. (Where prerequisites are waived, appropriate advanced courses may be added to earn total required number of hours. Up to six credits of basic courses in area of specialization when prerequisite to registration for advanced courses may be substituted for M.B.A. First Year courses.) Minimum residence requirement is 18 credits.

Students may *not* be concurrently enrolled in a degree program nor is the Executive Certificate Program open to those already holding a bachelor's degree.

CERTIFICATE IN ACCOUNTING—This certificate is basically for holders of the bachelor's degree in a field other than accounting who wish to become professional accountants and qualify for the C.P.A. examination. Appropriate courses satisfactorily completed in the undergraduate program or in previous study may be counted toward requirements, subject to minimum residence of 5 courses. (Credits taken toward undergraduate and/or graduate degrees at The American University count toward this residence requirement.)

Students admitted to M.B.A. or Ph.D. in Business Administration at The American University may also receive advanced standing for appropriate courses satisfactorily completed in this program, thereby meeting a significant portion of the requirements for those degrees. Students *may* be concurrently enrolled in a degree program.

The Certificate in Accounting is awarded upon completion, with at least "C" grades, of courses in accounting, taxation, and business law prescribed by Director of the Accounting Program. Courses will be based on previous education and background and requirements of the C.P.A. examination. In all cases, a minimum of 10 courses (including transfer credits) will be required.

PROFESSIONAL CERTIFICATE IN CHURCH MANAGEMENT—Awarded on successful completion of an intensive program of academic study, related work experience, and applied research.

Two patterns of learning experiences, the "Basic Requirements Courses" and the "Concentration Area", together totalling 48-60 credits, are required of all candidates. Classes are scheduled to permit studies at a high level of scholastic achievement without extensive leave from regular duties.

Graduates of this program are members of The American University Alumni Association.

Additional information, including a special brochure, may be obtained from the Center for Church Management.

CERTIFICATE IN REAL ESTATE—Growing complexities of operations and strong pressures for raising standards of practice to professional levels place an ever increasing premium upon additional formal education for practitioners. The certificate program goes

beyond the taking of individual courses. It provides an integrated "package" which attests to successful completion of an educational foundation for professional competence. A brochure is available from the Director, Real Estate and Urban Development Planning Program.

Technology of Management-certificate programs are offered in COMPUTER SYSTEMS, OPERATIONS RESEARCH, MANAGEMENT INFORMATION SYSTEMS, and RESEARCH AND DEVELOPMENT MANAGEMENT. Almost all credits count toward Business Administration degrees for those admitted to degree status. A brochure is available upon request.

Institutes

The School periodically offers specialized professional institutes, primarily for practicing businessmen. Planned with leading practitioners and, generally, appropriate trade and professional associations, they are part of the school's "continuing education" and offer short, intensive instruction on a time schedule permitting leave from regular duties. They are an important means of strengthening professional qualifications and of counteracting executive "obsolescence." See **Institutes** under course listings.

TECHNOLOGY AND MANAGEMENT

The Center for Technology and Administration provides a University-wide vehicle for the study of the effect of the emerging technological revolution on the administrative process. This predominantly graduate program includes computer systems, operations research management information systems, scientific and technical information systems, and research and development management as fields of elective study available to students in the School of Business Administration as part of their degree programs.*

See College of Continuing Education, page 134 for further details.

Operations Analysis (Management Science)

To serve the needs of many students seeking a more flexible program which takes account of their individual educational backgrounds and experience, SBA offers a new comprehensive field: Operations Analysis (Management Science). This program uses an interdisciplinary approach to the present areas of technology of management and presents a balance between specific quantitative/technical fields, management and related areas.

The program is designed to integrate and synthesize the tools of management science and computers from the point of view of management. The major emphasis in this program is on preparing mature graduate students for positions of increased executive responsibility and leadership.

Course requirements in this program are flexible, with only the culminating Seminar 10.795 Seminar in Operations Analysis (3) and, for Doctoral candidates, 10.796 Doctoral Literature Seminar in Operations Analysis (3) required. The other courses in the comprehensive field will be selected from relevant courses currently offered within the University, generally in the area of technology of management, on the basis of their suitability to the individual student in consultation between the student and his faculty advisor.

B.S.B.A.

For a major in COMPUTER SYSTEMS, see below.

M.B.A.

To combine MANAGEMENT (General Administration) and TECHNOLOGY OF MANAGEMENT, elect as comprehensive examination field 10.026, 55.063, 55.064, 55.066, or 55.067. See page 134.

Ph.D. in Technology of Management

To earn this degree which combines MANAGEMENT (General Administration), MANAGERIAL (BUSINESS) ECONOMICS, candidates select two comprehensive examination fields from 11.049, 11.050-11.058 sequence. See page 117.

*"This program is undergoing major revisions. Present and incoming students electing these fields will be permitted to transfer to new fields being developed by SBA in this area or complete the original option within a limited period of time."

Available Fields

COMPUTER SYSTEMS*—Program is designed to give a student a grasp of the capabilities and limitations of this management tool, with emphasis on a balanced academic program of concentration on the programming, design, and application of the instrument.

OPERATIONS RESEARCH*—Curriculum features familiarity of language, concepts and tools of "Management Sciences" in order to know where, when, how and to what advantage they can be applied.

SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS*—Functions of the special library and technical information center are treated in detail, including such procedures as technical writing and editing, computerized techniques of publishing, abstracting, indexing, search strategy, etc. Advanced seminars on special topics, such as library automation, *thesaurus construction*, and *data centers round out the curricular offerings*.

MANAGEMENT INFORMATION SYSTEMS*—For academic and professional specialization in those systems which: (a) perform the administrative processes of business or governmental action; (b) alter and manipulate information within the storage subsystem to produce information and analysis for managerial planning, decision, and control; (c) produce the managerial decision by interrelation of information and pre-determined criteria; or (d) execute such decision by pre-programmed initiation, performance, and control of the operational action involved.

RESEARCH AND DEVELOPMENT MANAGEMENT*—For academic and professional specialization in the formulation of research and development programs and the directing, control, and evaluation of their execution. This program is especially designed to develop initially or further the professional competence of those people who are or expect to be responsibly concerned with the management of research and development projects.

NOTE: For course descriptions, see Center for Technology and Administration under the College of Continuing Education.

OPERATIONS ANALYSIS (MANAGEMENT SCIENCE)*—For an interdisciplinary approach to the areas of technology of management with a balance between specific quantitative technical fields, and related areas. This program is especially designed to integrate and synthesize the tools of management sciences and computers from the management viewpoint.

Academic Regulations, School of Business

See also pages 24 and 25 and following for University regulations which govern all students.

Fulfillment of Academic Requirements

The student's primary obligation is to pursue conscientiously his academic objective and to complete as effectively as possible his academic assignments.

Professional education calls for long hours of hard work, mastery of subject matter, and ability to use it in specific situations; disciplined, inquiring, and observing minds; and independent research and analysis. Studies must therefore receive the highest priority of time and effort—they represent probably the most important personal and professional investment the student can make.

Students must supplement class work by doing considerable outside reading, written assignments, and study. Each student must carefully schedule his time so as to draw maximum profit from each course as well as from the curriculum as an integrated whole. To pursue a special interest or ability in one or a few courses at the cost of only minimum outside work in others will reduce the benefits of a carefully coordinated program and weaken the student's educational foundation and career preparation. Further, while extra-curricular activities and part-time employment have many educational benefits for business students, they must remain *secondary* to academic studies.

*This program is undergoing major revisions. Present and incoming students electing these fields will be permitted to transfer to new fields being developed by SBA in this area or complete the original option within a limited period of time.

Meeting Degree Requirements

While a large portion of faculty time is devoted to assisting the student to make proper program and career choices, the function of counselors is to help individuals help themselves. Selection of a major and choice of courses are among the most important decisions that each student makes during his university career. They cannot properly be delegated to anyone else. *Each student is held responsible for the planning and pursuit of his educational program and for meeting degree requirements.* It is his responsibility to understand fully, and to comply with, all University and School regulations. Course sequence sheets for undergraduates, M.B.A. Planning Records and the Doctoral Student Guide are indispensable tools for doing this effectively.

Absences

Students are expected to practice the business principle that regular and punctual attendance at all classes is a primary obligation and that absences shall be only those absolutely necessary. They must still be justified to instructors with the student still responsible, even if excused, for making up and mastering work he missed.

Veterans and other students studying at government expense may be subject to the loss of educational benefits for excessive absences.

Use of Correct English

A student whose written or spoken English is unsatisfactory in any course may be assigned supplementary work, without academic credit, or required to enroll for additional English courses.

Academic Dismissal

Undergraduates must maintain a 1.00 cumulative index (C average). Each academic record is evaluated at the end of each year of full-time study (or equivalent for part-time study). Those who at any time, however, do not meet minimum grade requirements may be dismissed at the School's discretion.

Graduate students must maintain a minimum 2.00 cumulative index (B average) in all graduate courses. Those who complete 18 graduate credits without the required index, or who drop below at any time thereafter, may be dismissed.

Students whose averages fall below good standing have the responsibility of taking the initiative in discussing their problems with faculty advisors and instructors. They will generally find it desirable to reduce their course load to permit more intensive concentration. Since students know their own averages, they should not delay taking remedial action until they receive formal warnings which are *not* required before dismissal.

Once dismissed, undergraduates must wait a year before they can apply for re-admission.

Students already enrolled in summer session at the University will generally be given until the end of the session before official action is taken and their summer grades will be taken into account.

Academic Probation

A freshman who fails to achieve a 1.00 index (C average) during his first two semesters (6 to 8 courses), but whose cumulative index is .750 or above, may be placed on academic probation for his second year at the discretion of the assistant dean, undergraduate program.

Freshmen should repeat any failed courses in the next semester.

M.B.A. students who fall below the minimum "B" average required for good standing, but who show sufficient promise of improvement, may be placed on academic probation rather than dismissed. In making this decision, the assistant dean, M.B.A. program, may require additional course preparation, particularly in background areas.

HONORS

Dean's Honor List

Undergraduates carrying at least four courses a semester are placed on the Dean's Honor List for each semester in which they earn an average of 2.5 (B+) or better. They are also guests of the school faculty at a luncheon given each session to honor their achievement.

Honors Awards

Each year, faculty and students join to honor students being recognized for excellence in studies and in campus activities. The President of the University generally presides at this Honors Convocation. In addition, the School makes a number of other honors awards.

Honors Study

The School is currently developing an Honors Program for the junior and senior years for superior undergraduates.

M.B.A. Honors

The M.B.A. is conferred *cum laude* for a graduate course index in residence of 2.7 or higher and at least two "Distinction" grades on comprehensive examinations; *magna cum laude* for 2.8 or higher and at least three "Distinctions"; and *summa cum laude* for 2.9 or higher and four "Distinctions" (3.00 = A).

Undergraduate Scholarships

See page 22 for information, credentials, final application dates. *School of Business Administration students may apply for both University and School scholarships; they are not restricted to the latter.*

Subject to total lending capacity no qualified student need be deprived of the opportunity to earn his degree in the School.

Transfer Student Eligibility

Transfer students other than junior college graduates are not eligible for scholarships during their first year, but are eligible for consideration the second year if their academic records meet required standards

General Financial Information

- Send applications for *University Awards* to Director of Financial Aid for undergraduate scholarships or to Dean of Graduate Studies for graduate fellowships and scholarships. Brochures are available.

- Applications for *School of Business Administration Awards* should be sent to Office of the Dean, School of Business Administration.

Note that many scholarships, awards and other financial aids are available to business majors. Students are urged to request further information and brochures.

- All School awards may be supplemented by limited loans.
- As long as funds remain available, fellowships and scholarships may be renewed on the basis of successful academic performance.

Centers and Special Activities

International Business

The University through the School of Business Administration has established a *Center for International Business* to provide the necessary background for: (1) Americans seeking careers at home and/or abroad, in the growing number of firms seeking foreign business; in the Foreign Service; and in other governmental and international agencies where public services are closely associated with business abroad; and (2) students from other countries seeking proficiency in business with emphasis on educational preparation for developing business operations for foreign or domestic firms in their own countries and for their governments.

Advanced programs are also being planned for practitioners already in international business who wish to strengthen backgrounds and increase competence in this complex area.

International Business Research Laboratory

A unique facility for research established by a grant from the late Mrs. Alan M. Scaife, the *International Business Research Laboratory* comprises business documents and artifacts organized to answer practical business questions, with information made readily available by modern data-handling technology. Equipment and information are being contributed by individual donors, firms, and governments. Additional contributions are welcomed to increase the scope and usefulness of the laboratory.

American and foreign company executives and government officials as well as students are welcome to utilize the Laboratory.

Transportation and Logistics Research

Increased need for and growing recognition of the value of research led the school to establish a *Center for Transportation and Logistics Research* which conducts research projects on a contract basis in transportation, traffic management, physical distribution, and business logistics.

The center seeks additional funds for research scholarships for graduate students and a reference service for visiting scholars. Foundations and individuals impressed by the many unique advantages arising from the school's leadership and pioneering in transportation education and the abundant and largely unexploited research resources of the nation's capital have made possible establishment of the center.

Church Management

An extensive program of education for leadership in obtaining and using financial, physical, and human resources for religious and related non-profit organizations is conducted by the Center for Church Management. The American University is the nation's only institution of higher education with a comprehensive program of graduate studies in this field.

This unique center exists for a threefold purpose of (1) educating men and women for effective stewardship of church management responsibilities, (2) making available an educational basis for strengthening the role of pastors as chief administrators, and (3) offering advanced education for religious career service as professional directors and ministers of management.

Program objectives are pursued through credit courses, non-credit institutes, faculty-supervised internships, field studies, professional consultation, and publication services.

Students of Wesley Theological Seminary and of Howard University School of Religion may take Church Management courses for which they are qualified and which are appropriate to their degree programs, without additional cost, subject to approval of the student's faculty advisor and the Director, Center for Church Management.

Admission is available to members of all religious faiths and denominations and to both non-degree and degree students. For further information, consult the Director, Center for Church Management.

NATHAN A. BAILY ANNUAL LECTURE IN CHURCH MANAGEMENT—Another innovation in its field, this lectureship was launched in November 1966. Started by an initial gift from James E. McKinney, business manager of the Arlington, Va., Methodist Church, it, at Mr. McKinney's request, was established in the name of and in honor of former Dean Nathan A. Baily. The lectures as delivered, or in expanded form, are to be published by arrangement with the Center for Church Management.

Homer Hoyt Institute

A non-profit organization conducting research and related activities in urban growth and development, real estate economics, and land planning and use, HHI serves as the research arm of the Real Estate and Urban Development Planning Program. Its services are available to private firms and organizations and to governmental agencies. Chairman of the board of directors of the institute is Dr. Homer Hoyt, noted land planner, housing and real estate economist, and author. Graduate assistantships are available through the Institute.

Washington Conference on Business-Government Relations

This annual conference brings together in the audience and on the rostrum key executives from business and government to help determine jointly the responsibilities of the public and private sectors in maximizing their contributions to a healthy economy. It provides a unique, non-political forum for business to tell its story; to discuss problems with government officials; to acquaint government people with how business actually operates; and for government to explore with business its concepts of regulation and its appropriate activities.

The Tenth Annual Conference will be held March 23, 24, 1970. For program and further details, write Director, Washington Conference on Business-Government Relations. The American University, Washington, D. C. 20016.

Study of Private Enterprise

As an expansion of the Business-Government Relations Program, this Center for the Study of Enterprise studies the changing roles of the private and the public sectors in our society with

particular concern for the proper role of each in the social, political and economic problem areas. It consists of five divisions: A Teaching Division responsible for M.B.A. and Ph.D. study in Business-Government Relations and Public Relations in Business; a Research Division to develop and conduct research into the changing role of private enterprise; a Publications Division; an Executive Development Division; and a Special Projects Division.

The center works closely with business and government leaders throughout the country both in curriculum development and in research projects.

Lectures in Business-Government Relations

Made possible through a grant from the Hill and Knowlton Company, these lectures present outstanding government leaders, business executives, and academic scholars. They explore the main problem areas in business-government relations and offer guidance in improving them. The lectures are published in book form, under the series title, *The Creative Interface*.

Corporate Executive-in-Residence

Contributions from several American corporations have enabled the Business-Government Relations Program to establish a Corporate Executive in Residence program. Each semester a different executive, active or retired with outstanding experience in one of the areas of business-government relations—administrative law, economics, public affairs, public relations—is brought to campus to counsel students, lecture to classes, lead discussions, and assist the program director in planning future academic developments. The first such Executive, in Spring 1968, was Mr. Harold Brayman, for twenty-one years Director of Public Relations for the du Pont Company, author of *Corporate Management in a World of Politics*, and one of the "Deans" of the public relations field. The second, in spring 1969, was Dr. Robert Haaken-son, Associate Director of Public Relations, Smith Kline and French Laboratories.

Assistance to Minority Businessmen

The School works closely with I.C.B.O. (Interracial Council for Business Opportunity) of greater Washington, a voluntary organization formed to help minority group members organize and successfully operate their own businesses. Student volunteers, particularly M.B.A.'s, work with experienced executives to counsel small businessmen in the District of Columbia, thereby making an important contribution to the community and gaining valuable experience for their own future careers.

Nathan A. Baily Investment Training Fund

This fund, contributed in honor of former Dean Baily, enables students to secure valuable experience in the management of an investment portfolio.

Special Management Development Programs

In addition to the above institutes, the School offers specially designed programs on a contractual basis with government agencies, business firms, and associations.

Many organizations use the school's extensive course offerings for "custom tailored" management development programs. Selected executives being groomed for promotion are given leave for a semester to study full-time. Metropolitan Washington firms may utilize evening and late afternoon classes and thereby not need to provide time away from the job.

10.456 Process of Management

10.457 Business Policy

10.400 Use of Accounting Information

10.201 Business Law I

10.491 Principles of Employee Relations have been found particularly useful as a foundation for supervisor and middle management programs.

Certificate Programs

Accounting Certificate

The certificate program in accounting has been flexibly designed to equip the student for a variety of careers in accounting. Major emphasis has been laid on courses which will assist the candidate in qualifying for most state CPA examinations. Students who successfully complete the program may also consider careers in managerial accounting with private

industry, all levels of government, or non-profit organizations such as trade associations and hospitals.

Completion of 10 courses (8 required and 2 elective) with grades of C or better will qualify a student for the accounting certificate. Students may transfer into the program comparable previous course work with grades of C or better. However, a minimum of 5 courses in the required category must be taken in residence. The student must maintain at least a C average to be awarded the certificate.

Completion of the above certificate may not meet the educational requirements for taking the CPA examination. Students planning to take the CPA examinations should find out the specific requirements of the state of their interest and consult with the Accounting Program advisors.

Required Courses (8 courses)

- 10.206 - Introduction to Accounting
- 10.207 - Accounting Methods
- 10.308 - Intermediate Accounting
- 10.309 - Advanced Accounting
- 10.410 - Accounting Readings and Problems
- 10.411 - Cost Accounting
- 10.421 - Auditing
- 10.431 - Fundamentals of Income Tax

Electives (2 courses)

- 10.201 - Business Law I
- 10.302 - Business Law II
- 10.465 - Business Finance I
- 10.466 - Business Finance II
- 10.532 - Advanced Income Taxes (3)
- 10.512 - Advanced Cost Accounting (3)

The Professional Certificate in Church Management

The professional certificate in Church Management is awarded on completion of an intensive program of academic study, related work experience, and practical research. Graduates of this program are members of The American University Alumni Association.

Two patterns of learning experiences, the "basic requirements" and the "concentration area," totalling 60 semester-hour credits or an equivalence, are required of all candidates:

THE BASIC REQUIREMENTS consist of 10 courses (40 credits) with at least "C" grades. This minimum includes two courses in composition and reading, two in religion, and one each in introductory accounting, personal finance, general psychology, and statistical methods. The student chooses all additional courses needed to meet the minimum of 40 credits.

Students may apply for "advancement to candidacy" for the certificate when they have satisfied the basic requirements, which may be completed at The American University, or met by transfer of satisfactorily completed courses from other institutions of higher education, or by passing waiver examinations.

THE CONCENTRATION AREA requires the equivalent of 20 semester hour credits in church management, with a least a "B" average and no grade lower than "C". As much as half of this requirement may be met through satisfactory completion of 30-hour institutes, which, in relation to this certificate program, are regarded as the equivalent of two credits each.

Candidates are required to achieve depth, breadth, and significant professional competence by completing satisfactorily:

- (1). Either two credits *or* an approved 30-hour institute in each of at least *four* of six functional areas of major emphasis in Church Management (program development, financial resources, physical facilities, office services, personnel relations, program promotion);
- (2). An internship (course 12.554) in which each student's accomplishments include that of completing a practical research project, reporting it as if for publication, and orally defending it at an open forum to which classmates, faculty, and guests are invited;

- (3). Such additional courses or institutes, or both, as may be needed to meet the 20-credit concentration area requirement as stated above;
- (4). Comprehensive examinations, written and oral, designed to assist in evaluating extent of knowledge and skill in the candidate's choice of *any four* of the preceding six areas of major emphasis.

Relation to Degree Programs: Business degree candidates at The American University may use appropriate courses satisfactorily completed in this certificate program to the extent permitted by their degree requirements.

Since the concentration area requires graduate standards of performance, graduate students in business administration may work concurrently toward both degree and certificate.

For further information, consult the Center for Church Management, School of Business Administration, The American University, Washington, D. C. 20016.

Real Estate Certificate

The growing complexities of real estate operations and the strong pressure for raising standards of practice to professional levels place an ever increasing premium upon additional formal education for practitioners. The certificate program provides an integrated "package" of courses and an effective educational foundation for professional competence.

I. Required Courses: Business Administration Courses

- 10.400 Use of Accounting Information (3) or one year of undergraduate *accounting*
- 19.446 Introduction to Business Economics (3) or one year of undergraduate *economics*
- 10.465 Business Finance I
- 10.491 Employee Relations *or*
- 10.456 Process of Management
- 11.300 Marketing

II. Real Estate and Urban Development Planning Courses

- 11.584 Mortgage Banking (3)
- 11.476 Fundamentals of Real Estate Investment *or*
- 31.504 Institute on Real Estate Appraisal I (3)
- 11.576 Real Estate Transactions (3) *or*
- 11.578 Real Estate Law (3)

and

Any other four real estate courses

Transfer of Credits

Subject to at least 21 credits taken in residence, transfer credit applies to equivalent courses previously completed satisfactorily at other accredited institutions.

All courses satisfactorily completed in this certificate program may be applied to degree requirements for students admitted to degree status. Students may work concurrently toward a degree and the certificate provided at least 6 credits are used exclusively for the certificate requirements.

College of Continuing Education

Correspondence Directory:

HERBERT E. STRINER, *Dean*

WALTER B. LEWIS, *Assistant Dean for Program Development*

HERBERT P. STUTTS, *Assistant Dean for Off-campus Programs and Special Sessions*

H. E. HOLMQUIST, *Assistant Dean for Administration*

Programs of Study

Administration of Justice: Certificate, Associate Degree, Bachelor of Science, Master of Science in Administration of Justice, Master of Science in Correctional Administration.

Center for Technology and Administration: Certificate in Data Processing; Certificate in Computer Systems, Operations Research, Scientific and Technical Information Systems, Research and Development, and Management Information Systems; Associate Degree and Bachelor of Science in General Studies; Technology of Management option; Master of Science in Technology of Management

Institutes:

English Language Institute: Certificate

Environmental Systems Analysis I

Mineral Resource Policies in the Public Interest

Intergovernmental Fiscal Relations

Labor Studies:

A System Approach to Task Analysis and Job Design

Problems in Manpower Policy Development

Problems of Race and Labor

Project Pride/AU: Certificate

Public Relations and Government Public Information: Certificate

Social Sciences: Associate Degree and Bachelor of Science in General Studies

Teaching: Master of Science in Teaching

Urban Affairs: Certificate

Full-time Faculty

Professor: Richard D. Powers, Martha Sager, Isaac D. Welt

Associate: Ralph I. Cole

Assistant: Richard A. Bassler, William H. Gammon, Mary Ann Hood, Harold Kaufman, Walter J. Kennevan, Janet M. Malcolm, James K. Rocks, Marvin I. Rosenberg, Eugene L. Shiro, Joseph G. Weiner

Instructor: Dana F. Czapanskiy, Edward C. Smith, Gary Weaver

Center for the Administration of Justice

The College of Continuing Education's Center for the Administration of Justice offers undergraduate, graduate, in-service training and research programs. The Center was formed by a merger of the Police Administration Program and Program in Correctional Administration. Students enrolled in either of these programs will be given the option of completing their program under the regulations in force at the time of their admission or of selecting a new program of study subject to approval by the Dean of the College. Curricula listed herein are tentative and not binding upon the University in any way. For more detailed information, write the Director of the Center for the Administration of Justice.

Certificate in Administration of Justice

The certificate is designed primarily for part-time non-degree students employed by governmental agencies involved in the administration of justice, civil and criminal. The curriculum introduces the student to basic concepts underlying the system for the administration of justice in contemporary American society.

- I. Foundation Requirements (4 courses)
 - 23.100 Composition and Reading I
 - 23.101 Composition and Reading II
 - 53.150 The U.S. Political System
 - 57.200 or 65.200 General Psychology or Introduction to Sociology
 - II. Major Requirements
 - 73.101 Introduction to the Administration of Justice I
 - 73.102 Introduction to the Administration of Justice II
 - 73.201 Criminal Justice and the Community
 - 73.220 Criminal Justice and the Constitution
- Certificate candidates preferring an emphasis on correctional work may substitute for 73.201 and 73.220 two of the following courses:
- 73.230 Contemporary Corrections in the United States
 - 73.252 The Juvenile and the Law
 - 73.253 Juvenile Delinquency and Youth Crime

Associate Degree in the Administration of Justice

This degree is designed for part-time undergraduate students employed by governmental agencies involved with the administration of justice. The program introduces the student to many of the legal, social and political problems of administering justice and examines the relationship between the various components of the system for the administration of justice.

- I. Foundation Requirements (8 courses)
 - Composition and Reading I and II (2 courses)
 - Mathematics and/or Natural Science (2 courses)
 - Biology
 - Chemistry
 - Earth Sciences
 - Mathematics
 - Physics
 - Humanities (2 courses)
 - Art
 - English (Excluding Composition and Reading)
 - History
 - Languages and Linguistics
 - Music
 - Philosophy and Religion
 - Speech Arts
 - Social Sciences (2 courses)

Anthropology

Economics

History (History courses may be counted in either humanities or social sciences, but not both).

Sociology

Psychology

Political Science

II. Major Requirements (8 courses)

53.150 The U. S. Political System

73.101 Introduction to the Administration of Justice I

73.102 Introduction to the Administration of Justice II

73.150 Social Processes and Deviant Behavior

73.201 Administration of Justice and the Community

73.220 Criminal Justice and the Constitution

III. Elective (One course)

73.254 History and Philosophy of Criminology

Bachelor of Science in the Administration of Justice

The bachelor's degree is designed both for students preparing for careers in the administration of justice and for students already actively engaged in such careers. The core curriculum gives the student a basic foundation in the legal, social and political problems involved in the administration of justice and focuses attention on the relationships between various components of the existing administration of justice system. The major requirements take the student into specific problem areas while maintaining the students breadth of view of the system as a whole.

Foundation Requirements (8 courses)

Composition and Reading I and II (2 courses)

Mathematics and/or Natural Science (2 courses)

Biology

Chemistry

Earth Sciences

Mathematics

Physics

Humanities (2 courses)

Art

English (Excluding Composition and Reading)

History

Languages and Linguistics

Music

Philosophy and Religion

Speech Arts

Social Sciences (2 courses)

Anthropology

Economics

History (History courses may be counted in either humanities or social sciences, but not both).

Sociology

Psychology

Political Science

II. Core curriculum in the Administration of Justice

53.150 The U. S. Political System

73.101 Introduction to the Administration of Justice I

73.102 Introduction to the Administration of Justice II

73.150 Social Processes and Deviant Behavior

73.201 The Administration of Justice and the Community

73.220 Criminal Justice and the Constitution

73.254 History and Philosophy of Criminology

III. Major Requirements (9 courses)

At least two courses must be selected from Group A, two from Group B, and one each from Groups C, D, and E.

- A. Law Enforcement and Police Administration
 - 73.210 Administrative Concepts in Law Enforcement and Public Safety I
 - 73.211 Administrative Concepts in Law Enforcement and Public Safety II
 - 73.221 Substantive Aspects of Criminal Law
 - 73.250 Psychology for Law Enforcement Officers
 - 73.254 Contemporary Crime
 - 73.310 Traffic Regulation and Control
 - 73.311 Introduction to Forensic Science
 - 73.312 Drug Abuse Control
 - 73.313 Organized Crime I
 - 73.314 Organized Crime II
 - 73.315 White Collar and Commercial Crime
 - 73.320 Criminal Procedure and Evidence
 - 73.321 Evidence
 - 73.411 Problems in Forensic Science
 - 73.412 The Police Role in Society
- B. Corrections
 - 73.230 Contemporary Corrections in the United States
 - 73.330 Community Treatment of the Offender
 - 73.331 Institutional Treatment of the Offender
 - 73.430 Correctional Administration
 - 73.431 The Prison Community
 - 73.530 Clinical Criminology
 - 73.531 Counseling and Guidance
- C. Court Administration
 - 73.340 Judicial Administration—Criminal
 - 73.341 Judicial Administration—Civil
 - 73.440 Data Processing in Court Administration
 - 73.540 Survey in Judicial Administration
- D. Law and Society
 - 73.251 Intoxication and the Law
 - 73.252 The Juvenile and the Law
 - 73.253 Juvenile Delinquency and Youth Crime
 - 73.351 Individuals, Institutions, and Society
 - 73.352 Psychiatry and the Law
 - 73.354 Contemporary Crime
 - 73.401 The Concept of Justice
 - 73.402 Non-Judicial Administration of Justice
 - 73.450 Prevention of Crime and Delinquency
 - 73.451 Poverty and the Administration of Justice
 - 73.452 Interpersonal Relations and Human Development
 - 73.453 Civil Disorder
 - 73.454 Violence in Urban America
 - 73.455 Etiology of Crime
 - 73.463 The Free Press and the Administration of Justice
 - 73.464 Problems of Corruption
- E. Independent Study, Research and Internship
 - 73.390 Independent Reading in the Administration of Justice
 - 73.410 Special Problems in the Administration of Justice
 - 73.471 Internship
 - 73.480 Seminar in Contemporary Criminal Justice Problems
 - 73.490 Independent Study Project
- F. Electives (8 courses)

Master of Science in the Administration of Justice

Admission to the program is open to all students holding a bachelor's degree from an accredited institution and meeting the minimum requirements for admission to graduate study at The American University. Each candidate will be required to complete eight courses in two comprehensive fields and 6 hours of research work. One comprehensive field must be selected

from Group A and one from Group B, with a written comprehensive examination required in Group B. The insufficiently prepared student may have to take from 3 to 15 hours in intensive preparation courses as determined by the Admission Committee.

Group A

A-1 Management: 3 or 4 courses selected from the following

- 10.558 Ethics in Management
- 54.643 Governmental Program and Budget
- 54.610 Modern Public Management I
- 54.611 Modern Public Management II
- 54.612 Advanced Organization Theory
- 54.650 Principles of Public Personnel Administration

A-2 Systems: 3 or 4 courses selected from the following

- 54.643 Governmental Program and Budget
- 55.511 The Systems Approach
- 55.512 Introduction to Cybernetics
- 55.513 Technology and Administration
- 55.530 Automatic Data Processing Systems
- 55.540 Operations Research in Management
- 55.550 Survey of Information Science and Technology
- 55.561 Management of Automatic Data Processing Systems

A-3 Behavioral Science: 3 or 4 courses from the following

- 10.600 Seminar in Group Relations
- 19.544 Urban Economics
- 21.520 Advanced Psychology of Education
- 57.670 Advanced Social Psychology
- 65.551 The City
- 65.592 Social Aspects of Mass Communications
- 67.580 Small Group Communications
- 73.640 Behavioral Theory
- 73.641 Interviewing and Individual Counseling
- 73.645 Action Methods and Crisis Intervention
- 73.646 Understanding Organizational Behavior

A-4 Government: 3 or 4 courses selected from the following

- 53.600 Political Thought of the Modern State
- 53.651 The Legislative Process
- 53.653 American Federalism
- 53.660 Political Dynamics
- 53.661 Political Behavior
- 53.670 Constitutional Law and the Supreme Court
- 53.671 Judicial Systems and Process
- 53.680 Urban Polity
- 53.682 Urban Politics
- 53.683 Urban Administration

Group B

B-1 Administration of Justice: 73.540, 73.610, 73.636 and 1 or 2 courses from the following

- 73.601 Systems in the Administration of Justice
- 73.602 Comprehensive Law Enforcement Planning
- 73.620 Civil Liberties and the Criminal Justice System
- 73.644 Data Processing in Judicial Administration
- 73.652 Sociology of Law
- 73.660 Civil Rights Enforcement

B-2 Corrections: 73.540, 73.610, 73.640 and 2 or 3 courses from the following.

- 73.602 Comprehensive Law Enforcement Planning
- 73.630 The Law of Corrections
- 73.635 Comparative Correctional Systems
- 73.640 Behavioral Theory
- 73.641 Interviewing and Individual Counseling
- 73.642 Theory and Principles of Group Work

- 73.643 Group Work Practicum
- 73.636 Administrative Management in Corrections
- B-3 Law Enforcement: 73.540, 73.610, 73.636 and 1 or 2 courses from the following
 - 73.602 Comprehensive Law Enforcement Planning
 - 73.603 Community Control of Law Enforcement
 - 73.615 Comparative Police Systems
 - 73.616 Federal-State Relations in Law Enforcement
 - 73.620 Civil Liberties and the Criminal Justice System
 - 73.621 Criminal Law and Police Administration
 - 73.660 Civil Rights Enforcement

Master of Science in Correctional Administration

The Master of Science in Correctional Administration is a professional degree designed to equip qualified candidates interested in various career areas of corrections for positions of leadership in this field. It is planned especially for those engaged in correctional work but is open to all qualified college graduates. The curriculum is presently under revision.

Center for Technology and Administration

The Center for Technology and Administration was organized in 1958 to provide a vehicle for the study of the effect of the evolving modern technology on administrative processes. In 1970, the center was placed administratively under the College of Continuing Education. The center offers both undergraduate and graduate certificate and degree programs.

Certificate Program in Data Processing Systems

Students in the data processing certificate program may apply such a program to careers in the field of business or technology of management. The certificate is awarded upon completion of 8 courses distributed under the curriculum provided below. Up to an equivalent of 3 courses of comparable previous course work may be applied by transfer. A minimum of 5 courses of this program must be taken in residence. Students may transfer into the program grades of "C" or better from an accredited institution. The student must maintain a "C" average to be awarded the certificate.

Certificate Requirements: 8 courses

- 41.100 Finite Mathematics
- 69.202 Basic Statistics
- 10.206 Introduction to Accounting
- 55.310 Introduction to Data Processing
- 55.333 Computer Programming: FORTRAN
- 55.334 Computer Programming: COBOL
- 55.511 The Systems Approach
- 55.530 Automatic Data Processing Systems

Certificate Programs in Technology of Management

The College of Continuing Education offers the following programs for certificates in technology of management: computer systems, operations research, scientific and technical information systems, research and development management, and management information systems.

These certificate opportunities are offered as specialized preparation for careers in these fields for the students who do not want the broader and more demanding requirements of alternative graduate degree programs or who cannot meet the other scholastic requirements of graduate study. Under certain conditions certificate work may be applied toward the award of a degree.

These certificate programs are open to any student who has a bachelor's degree from an accredited undergraduate institution.

Computer Systems Certificate

Prerequisite Courses (no graduate credit)

- 55.310 Introduction to Data Processing
(waived for the student who has had two years of job-related computer experience, and instruction or substantial experience in non-computer data-handling systems.)
55.333 Computer Programming: FORTRAN
OR
55.334 Computer Programming: COBOL
55.411 Introduction to Management Mathematics
(or 41.100 and 41.101)
69.400 Managerial Statistics
(or 69.202 and 69.300)

Advanced and Graduate Courses (15 hours required)

- 55.511 The Systems Approach (3)
55.530 Automatic Data Processing Systems (3)
and three (3) courses from
55.531 Computer Design (3)
55.632 Advanced Computer Applications (3)
55.633 Programming Systems and Language (3)
(Formerly Evaluation of Software)
55.635 Workshop in Computer Systems (3)
55.637 Workshop in Operating Systems (3)

Operations Research Certificate

Prerequisite Courses (no graduate credit)

- 55.411 Introduction to Management Mathematics
(or 41.110 and 41.111)
69.400 Managerial Statistics (or 69.202 and 69.300)

Advanced and Graduate Courses (15 or 18 hours required)

- 55.544 Advanced Management Mathematics (3)
(required of students who have had equivalents of 41.222 and 41.223 *more than* ten years ago.)
55.511 The Systems Approach (3)
55.542 Probability and Statistics for Management Decisions (3)
55.641 Methods of Operations Research I (3)
55.642 Methods of Operations Research II (3)
41.576 Mathematical Methods of Operations Research (3)

Scientific and Technical Information Systems Certificate

Prerequisite Courses (no graduate credit)

- 55.310 Introduction to Data Processing
(waived for the student who has had two years of job-related computer experience, and instruction or substantial experience in non-computer data-handling systems.)
55.333 Computer Programming: FORTRAN
55.411 Introduction to Management Mathematics
(or 41.100 and 41.101)

Advanced and Graduate Courses (18 hours required)

- 55.511 The Systems Approach (3)
55.530 Automatic Data Processing Systems (3)
and four (4) courses from
55.500 Survey of Information Science & Technology (3)
(Formerly Types & Uses of Scientific & Technical Information)
55.650 Natural Language Data Processing (3)
55.651 Technical Information Machine Systems (3)

- 55.653 Concepts of Indexing and Abstracting (3)
- 55.655 Automated Library Systems (3)
- 55.656 Publication Techniques (3)

Research and Development Management Certificate

Prerequisite Courses (no graduate credit)

- 69.400 Managerial Statistics
(or 69.202 and 69.300)
- 54.310 Public Administration
OR
- 10.481 Principles of Production

Advanced and Graduate Courses (15 hours required)

- 55.511 The Systems Approach (3)
- 55.570 The Management of Research & Engineering Organizations and Laboratories (3)
and three (3) from
- 55.670 The Politics and Economics of R & D (3)
- 55.671 R & D in the Total Organization (3)
- 55.672 Scientific & Engineering Manpower (3)
- 55.673 Planning & Control of R & D Operations (3)

Management Information Systems Certificate

Prerequisite Courses (no graduate credit)

55.310 Introduction to Data Processing
(waived for the student who has had two years of job-related experience with computers, and instruction or substantial experience in non-computer data-handling systems.)

- 55.411 Introduction to Management Mathematics
(or 41.100 and 41.101)
- 69.400 Managerial Statistics
(or 69.202 and 69.300)

Advanced and Graduate Courses (15 hours required)

- 55.511 The Systems Approach (3)
- 55.530 Automatic Data Processing Systems (3)
and three (3) from
- 55.560 Systems Design for Business-Operations (3)
- 55.561 Management of Automatic Data Processing Systems (3)
- 55.660 Management Information & Reporting Systems (3)
- 55.661 Workshop in Data Communications (3)

Associate Degree in General Studies

Technology of Management option: 16 courses

- A. University requirements: 2 courses
 - 23.100 English Reading & Composition I
 - 23.101 English Reading & Composition II
- B. Departmental requirements: 9 courses
 - 10.206 Introduction to Accounting
 - 10.207 Accounting Methods
 - 10.201 Business Law I
 - 69.202 Basic Statistics
 - 55.310 Introduction to Data Processing
 - 55.333 Computer Programming: FORTRAN
 - 55.334 Computer Programming: COBOL
 - 55.511 The Systems Approach
 - 55.530 Automatic Data Processing Systems
- C. Related courses: 5 courses
 - Humanities electives: 3 courses
 - Mathematics: 2 courses

- 41.100 Finite Mathematics and
- 41.101 Elements of Calculus

Bachelor of Science in General Studies

Technology of Management option. 32 courses

- A. University requirements: 2 courses
 - 23.100 English Reading & Composition I
 - 23.101 English Reading & Composition II
- B. Departmental requirements: 16 courses
 - 10.206 Introduction to Accounting
 - 10.207 Accounting Methods
 - 10.201 Business Law I
 - 10.302 Business Law II
 - 10.456 The Process of Management
 - 10.481 Principles of Production
 - 55.310 Introduction to Data Processing
 - 55.333 Computer Programming: FORTRAN
 - 55.334 Computer Programming: COBOL
 - 55.411 Introduction to Management Mathematics
 - 55.511 The Systems Approach
 - 69.202 Basic Statistics
 - 69.300 Business Statistics
- Plus two (2) Technology of Management elective courses
- C. Related courses: 6 courses
 - Humanities electives: 2 courses
 - Mathematics: 2 courses
 - 41.100 Finite Mathematics and
 - 41.101 Elements of Calculus
 - Social sciences: 2 courses
 - 19.100 Introduction to Economics and
 - 19.110 Selected Topics in Economics
- D. Electives: 8 courses

Master of Science in Technology of Management

Requirements

The Master of Science in Technology of Management is a professional degree designed to equip qualified candidates with a concentrated background in computer systems, information systems, and management theory and practice. Areas of concentration may be selected from a wide spectrum of subject matter to satisfy requirements. A bachelor's degree from an accredited college is required for admission to this program. In addition to the prerequisites and foundation courses or their equivalents, the program consists of thirty to thirty-six hours of graduate credit hours of course work distributed in two fields of concentration which are chosen for the required comprehensive examinations. At least twelve hours including a seminar course must be taken in one field. The other field requirement may be satisfied by nine hours of graduate work. Each student will be assigned a faculty advisor who will outline and approve the student's program, including the course and credit hour requirements, and will supervise the thesis if the thesis option is chosen. Completion of the program must be accomplished with at least a B average of all the graduate courses taken.

Comprehensive Examinations

To complete the degree, each student must pass two comprehensive examinations. They may be both from the following:

- 55.063 Computer Systems
- 55.064 Operations Research
- 55.065 Scientific and Technical Information Systems
- 55.066 Management Information Systems
- 55.067 Research and Development Management

Special Program

To satisfy the needs of students with special interests, special programs which would include one comprehensive field from the list above and one other may be arranged between the student and his advisor. The second comprehensive field may be a related one offered by one of the other schools or colleges of The American University or may be a special one, designed by the advisor in consultation with the student to meet his special needs, and based on related graduate level courses offered by the University.

Thesis

A thesis option is offered. This will provide for 3 to 6 credit hours depending on the extent of the research done for the thesis. This determination will be made between the student and his faculty advisor subject to the approval of the dean of the College of Continuing Education.

English Language Institute

The English Language Institute offers intensive and semi-intensive courses on a continuous basis throughout the year in English as a foreign language. For details concerning course dates, fees, and class hours, see the appropriate bulletin for each semester or session. Descriptions of courses may be found in this catalog in the "Courses of Instruction" section under the heading Institutes.

- I. INTENSIVE COURSES (30 hours per week)
English Workshop I: Intensive Basic English
English Workshop II: Intensive Intermediate English
English Workshop III: High Intermediate English
- II. SEMI-INTENSIVE COURSE (15 hours per week)
English Workshop IV: Advanced English
- III. Non-INTENSIVE COURSES
74.100 Composition and Reading I (3)
74.101 Composition and Reading II (3)
(Note: F74.100 and F74.101 satisfy the University requirement in English for undergraduate students. Each counts as one course for undergraduate degree purposes.)

A certificate of proficiency is issued to each student upon completion of any intensive or semi-intensive course, indicating the level of English proficiency attained.

Environmental Systems Analysis

This course includes scientific investigations of human and natural resources in relation to the problems in pollution resulting from misuse of these resources. Participants will enroll in this course to the complete *exclusion* of any other courses during a given semester to enable an intensive learning experience. For description see Institutes under Courses of Instruction

Problems of Mineral Resource Policies and the Public Interest

Myths and reality relating to the contribution of petroleum and other mineral resources to national economies; emergence of environmental and social constraints on mineral resource production and use; current mineral policy-making mechanisms in the United States including the role of special interests.

Labor Studies

The Center for Labor Studies offers a variety of certificate programs for AFL-CIO union members and officials. The center also offers courses, in conjunction with the School of International Service, in international labor movements, world labor and contemporary international relations and labor problems of a specific geographical area. For descriptions of Manpower Policy Development Problems of Race and Labor and Task Analysis and Job Design institutes, see "Institutes" in the *Courses of Instruction* section of this catalog.

Project Pride/American University

The College of Continuing Education offers an undergraduate certificate program for inner-city residents recruited by Pride, Incorporated, and other community organizations. The Project brings together the resources of an urban university and an established inner-city organization. The curriculum features courses relevant to the educational needs of students from Pride, Incorporated and other inner-city organizations. The courses are open to American University students as well, with the permission of the College of Continuing Education. Under certain conditions credit earned in the certificate program may be applied toward an undergraduate degree. The requirements for the certificate program are outlined below:

I. PREREQUISITE COURSES:

- A. 71.100 Basics of Communication (4)
- B. 71.110 Fabric of Social Structure I (4)
- C. 71.111 Fabric of Social Structure II (4)
- D. 71.102 Methods of Communications I (4)
- E. 71.103 Methods of Communications II (4)
- F. 71.396 Pride/AU Institute (2)
- G. 71.201 Black Cultural Heritage (4)
- H. 71.202 Social Dynamics (4)
- I. 71.105 Mathematic Skills (2)

(This course is only required of those planning to enter the area of specialization: Business and Economics)

II. ADVANCED CERTIFICATE COURSES

Each student will choose one area of specialization.

- A. Business and Economics
 - 71.210 Accounting Principles I (2)
 - 71.211 Salesmanship (2)
 - 71.212 Accounting Principles II (2)
 - 71.233 Techniques of Management (4)
- B. Institutions of Change
 - 71.220 The Educational Institution (4)
 - 71.221 Law, Repression and the Community (4)
 - 71.222 Community Organization (4)
- C. Counseling and Education
 - 71.230 Consumer Education (4)
 - 71.231 Lay Advocacy (4)
 - 71.232 Principles of Counseling (4)

Public Relations and Government Public Information

These certificate programs can be completed through fifteen hours of graduate coursework as described below and are open to qualified students who already hold a bachelor's degree. Those who have had no previous experience or course work in the field of communications may be required to take some additional undergraduate prerequisites. No comprehensive examination, research seminar, or thesis is required for these certificates.

Students enrolled in courses applicable to these certificates must maintain grades of "B" or better. Non-degree students previously enrolled in communication courses who did not maintain a grade of "B" in each course will be excluded from participation in the Certificate programs.

All persons applying for admission to the certificate programs must be screened by the Director of the Career Development Program in Communication. Transcripts of undergraduate studies and evidence of working experience will be required. Students receiving the graduate certificate in Public Relations or Government Information may apply some or all credits toward the M.A. degree from the Department of Communication, if otherwise qualified and approved by the faculty for advancement to degree candidacy. However, admission to the degree program is limited (1) to applicants with exceptional academic and professional background, and (2) by factors within the Department of Communication relative to full-time enrollments, size and availability of physical facilities, and numbers of full-time faculty.

Certificate in Public Relations

Required:

- 17.540 Principles of Public Relations
- 17.541 Publicity Writing
- 17.542 Promotional Campaigns

and one of the following:

- 17.543 Public Relations Abroad
- 17.544 Public Relations and Government
- 17.740 P.R. Seminar: Non-Profit Institutions
- 17.545 P.R. in Business

Elective: (choose one)

- 17.501 Communication Law
- 17.532 Publication Layout & Design
- 67.510 Advanced Public Speaking

Certificate in Government Public Information

Required:

- 17.501 Communication Law
- 17.503 Mass Media in Society*
- 17.544 Public Relations and Government

and one of the following:

- 17.526 Advanced Feature Writing
- 17.527 Advanced Scientific & Technical Writing
- 17.561 Advanced Writing for Broadcast

Elective: (Choose one)

- 17.532 Publication Layout & Design
- 67.510 Advanced Public Speaking

Associate Degree in General Studies

Social Science option: 16 courses

- A. University requirements: 2 courses
 - 23.100 English Reading & Composition I
 - 23.101 English Reading & Composition II
- B. Departmental requirements: 9 courses

Three (3) courses each in *three* of the following areas: anthropology, economics, history, sociology, government, international relations, or technology of management.

- C. Related courses: 5 courses
 - 1. Humanities electives: 3 courses
 - 2. Mathematics and/or science: 2 courses

Bachelor of Science in General Studies

Social Science Option: 32 courses

- A. University requirements: 2 courses
 - 23.100 English Reading & Composition I
 - 23.101 English Reading & Composition II
- B. Departmental requirements: 15 courses

Three (3) courses each in *three* of the following fields (plus a minimum of six (6) courses of upperlevel work in one of the elected social science areas): anthropology, technology of management, economics, government, history, international relations, psychology, or sociology.

- C. Related courses: 5 courses
 - 1. Humanities electives: 3 courses
 - 2. Mathematics and/or science: 2 courses
- D. Electives: 10 courses

* Usually offered during Summer Session Only

Master of Science in Teaching

Requirements

The Master of Science in Teaching is a professional degree designed to equip qualified candidates who are interested in the field of teaching. It is planned for full or part-time students who already have a bachelor's degree in a field of concentration other than education, and who are seeking a second career in teaching. In most cases the Graduate Record Examinations are not required for admission to the program.

In addition to the prerequisite courses or their equivalents, the program consists of a minimum of thirty graduate credit hours of professional training for teaching at the secondary level. A minimum of twelve graduate hours will usually be taken in the subject matter area in which the candidate desires to teach. The remainder of the credits will be taken in education as outlined under the curriculum which follows. Since candidates are required to take six credits in a graduate research seminar, no thesis is required.

Comprehensive Examinations

To complete the degree each student must pass at least one comprehensive examination, as determined by the Dean in the subject matter area and one in a core field of education.

The Master of Science in Teaching degree presently offers the following areas as disciplines: data processing, English, foreign language, mathematics, sciences, and various social areas.

I. *Prerequisites*

- A. Psychology of Education
- B. Methods of Teaching in Secondary Schools
- C. Basic Statistics

II. *Foundations of Education* (6 hours)

- A. Historical and philosophical basis for education (to be satisfied by one course in history of education and one course in philosophy of education).
 - 21.510 Philosophy of Education (3)
 - 21.512 History of Education in the United States (3) or
 - 21.511 History of Education in Western Culture (3) or
- B. Psychological and developmental aspects of classroom teaching (to be satisfied by the following courses).
 - 21.520 Advanced Psychology of Education (3)
 - 21.521 Mental Health in Schools (3)

III. *Evaluation and Measurement in Education* (3)

- 21.522 Evaluation of Student Progress (3)
(Prerequisite: 69.202 Basic Statistics or equivalent)

IV. *Graduate Research Seminar* (3 hours)

- 21.790 Research Seminar in Education I (3)
- 21.791 Research Seminar in Education II (3) (required only for those students who have completed student teaching or have had teaching experience.)

V. *Practicum Area* (6 hours)

To be satisfied by 21.792 In-Service Training: Internship in Education. (Prerequisite: one course in methods of teaching in secondary schools.) At least 6 weeks (or the equivalent) of student teaching with a supervising teacher at the secondary level. Arrangements may be made to complete this requirement in evening high schools throughout the Washington metropolitan area.

VI. *Subject Matter Area* (12 hours)

The student must select a minimum of 12 credits in a major academic area at the advanced level. A list of course offerings for each of the discipline areas is available upon request.

Certificate Program in Urban Affairs

The College of Continuing Education in cooperation with the School of Government and Public Administration offers a certificate program in urban affairs for the student who does not want the broader and more demanding requirements of alternate graduate degree programs or who cannot meet the scholastic requirements of graduate study. In certain conditions certificate work may apply toward a graduate degree objective.

To be considered for admission to this program, a degree from an accredited institution is required.

To remain in the program, a student is required to maintain at least a "C" in all courses.

I. *Prerequisites*—From 0-12 hours as follows:

- 53.650 Graduate Survey of American Government (3) (or 6 hours of Undergraduate American Government.)
- 54.653 American Federalism (3) (or 3 hours of Undergraduate Urban Government Federalism.)
- 53.660 Political Dynamics (3), or 53.661 Political Behavior (3) (or 3 hours of Undergraduate Political Dynamics.)
- 54.600 The Administrative State (3) or 54.610 Modern Public Management I (3) (or 3 hours of Undergraduate Public Administration)

II. *Advanced graduate course* (15 hours required):

- 53.680 The Urban Polity (3)
 - 53.682 Urban Politics (3)
 - 53.683 Urban Administration (3)
 - 53.684 Urban Planning (3)
- 3 hours from other courses listed in the M.P.A. in Urban Affairs Program.

School of Government and Public Administration

Correspondence Directory:

EARL H. DeLONG, *Dean*
CHARLES H. GOODMAN, *Associate Dean for Undergraduate Program*
JEROME J. HANUS, *Associate Dean for Graduate Programs*
NATHANIEL S. PRESTON, *Director, Washington Semester Program*

Fields of Study

Political theory, American politics, comparative politics, and public policy.

Full-time Faculty

Professor: Robert P. Boynton, Richard M. Bray, Frederic S. Burin, II, Robert E. Cleary, Earl H. DeLong, Chester B. Earle, Charles H. Goodman, Robert E. Goostree, Royce Hanson, Lowell H. Hattery, Louis S. Loeb, William A. Lybrand, Martin Meadows, Emmet V. Mittlebeeler, Nathaniel S. Preston, Edgar S. Robinson, Harold H. Roth, Morley Segal, Lois E. Torrence, Millidge P. Walker.

Associate Professor: A. Lee Fritschler, Jerome J. Hanus, B. Douglas Harman, Richard G. Smolka, Brady B. Tyson

Assistant Professor: Carl Akins, Coralie Bryant, Dennis Dorin, Richard A. Fehnel, Layne Hoppe, James L. Kirkman, David Koehler, Ruth A. Lane, Harvey Lieber, Alonzo Mackelprang, Howard E. McCurdy, Bruce F. Norton, James Rocks, Bernard H. Ross, Diane S. Rothberg, Charles L. Ruttenberg, Glynn L. Wood, Donald Zauderer.

Undergraduate Degrees

Bachelor of Arts

IN POLITICAL SCIENCE

This program leads to the degree of Bachelor of Arts in Political Science. It is available through registration in the School of Government and Public Administration (SGPA).

Admission and Retention Requirements

Requirements for admission to or continuation in the undergraduate program in this School are the same as for students in the College of Arts and Sciences. See page 13.

University Requirements

Political science majors in SGPA are bound by the general University Requirements stated in the Academic Regulations Section of this *Catalog*. See page 24.

School or College Requirements

For political science majors who are registered in SGPA, the School has no additional requirements except the features of the Political Science major program as defined below.

Foreign Language Course Regulation

Undergraduate students majoring in the School of Government and Public Administration are not required to take foreign language. However, if a student wishes, he may

It is necessary to complete successfully the second session of a beginning or intermediate foreign language course to receive academic credit for the first session of the same course. Academic credit is not awarded for a single session of language study at these levels. This includes beginning and intermediate intensive language courses.

Graduate Record Examinations

The School of Government and Public Administration does not require its graduating seniors to take any portion of the Graduate Record Examinations. However, many graduate schools throughout the United States do require such examinations as a condition of consideration for admission. Graduating seniors who may later decide to undertake graduate study would be wise to take some or all of the tests of the Graduate Record Examinations. The Director of Testing and Guidance should be consulted for advice on which tests to take for the individual student's needs.

Students who hope to enter the employment of the United States government should know that a high score in the Aptitude Test of the Graduate Record Examinations will be accepted in lieu of the Federal Entrance Examination as a basis for consideration for federal employment. Such students also would do well to take this test.

At the beginning of the fall semester, seniors who wish to take such examinations should write directly to The Educational Testing Center, Princeton, New Jersey, for information about the times and places for taking such tests in the Washington, D.C. area.

POLITICAL SCIENCE MAJOR

Requirements

This program for the political science major is outlined here in four parts and given in detail in the full undergraduate curriculum following:

I. Required Foundation Courses (three courses)

53.100 Modern Government

53.150 The U.S. Political System

33.200 Introduction to World Politics-I (an SIS course)

II. Areas of Study (six courses selected from the following, including a requirement of at least one and not more than two "Topics" courses.)

A. Political Theory

53.310 Early Political Thought

53.311 Modern Political Thought

53.312 Introduction to Political Inquiry

53.410 Topics in Political Thought

B. American Politics

53.320 Political Behavior

53.321 Congress and the Presidency

53.322 Bureaucracy and Administration

53.323 Law and the Political System

53.324 Metropolitan Politics

53.325 Politics of Afro-America

53.420 Topics in American Politics

C. Comparative Politics

- 53 330 Comparative Politics of Industrial Societies
- 53 331 Comparative Politics of Agrarian and Industrializing Societies
- 53 430 Topics in Comparative Politics

D. Public Policy

- 53 340 Government and Public Policy
- 53 341 Civil Rights and Liberties
- 53 440 Topics in Public Policy

E. Other special SGPA courses

56 413, 56 414, and 56 415 The Urban Semester. (Available only by selection. All three units required if this is taken. Counts as three courses toward the general Bachelor's degree requirement of 32 courses, but only as two courses toward this political science major program.)

56 410, 56 411, and 56 412 The Washington Semester (Available only by selection. All three units required if this is taken. Counts as three courses toward the general Bachelor's degree requirement of 32 courses, but only as two courses toward this political science major program.)

- 56 390 Independent Reading (credit as one course)
- 56 490 Independent Research (credit as one course)
- 56 395 Undergraduate Internships in Government and Politics (credit as one course)
- 56 396 Selected Topics (credited as specified when offered, normally as one course)
- 56 498 and 56 499 Senior Honors (counted as one course each)

F. International Relations (Courses offered by the School of International Service)

Political science majors may count up to three such courses, in addition to 33.200, as part of their major requirements. If the student does take three, then no more than one additional course in international relations may be taken as part of the Related Course requirements (see below). Consult the SIS sections of *Catalog* and *Schedule of Classes*.

III. Related Course Requirements (seven courses):

Seven courses chosen from the fields of: anthropology, economics, history, international relations (see II F above), psychology, sociology, or statistics. No more than two(2) courses may be taken in any one of the listed fields for application to the political science major requirement. Courses from other disciplines may be counted as related courses with the approval of Associate Dean Goodman or the student's advisor.

Honors Program

By student application, and by selection by the Associate Dean of SGPA during the student's junior year, The American University political science majors may take two honors courses (56 498, 56 499) during the senior year. With successful achievement, such students will receive their bachelor's degrees with Honors in Political Science.

For selection, the student must have, in course work taken prior to the selecting decision, a 2.0 average in all course work, and a 2.25 average in all course work taken under the requirements of this political science major program structure. The two courses (56 498, 56 499) constitute this honors opportunity. They will normally be taken in the order listed, one each semester. With the approval of the associate dean of SGPA, they may be taken concurrently in the same semester.

Graduate Degrees

Degree Programs Available

The School of Government and Public Administration offers the following graduate degree programs:

- Master of Arts in Government
- Master of Arts in Public Administration
- Master of Arts in Public Administration: Technology of Management *
- Master of Public Administration
- Master of Public Administration in Urban Affairs
- Master of Public Administration: Technology of Management *

Doctor of Philosophy in Government
 Doctor of Philosophy in Public Administration
 Doctor of Philosophy in Public Administration: Technology of Management *

* A SPECIAL NOTE: These technology of management degree programs will no longer be offered as SGPA degree programs for new students. They will be continued as required for completion by those SGPA students who have previously been admitted to them. Students who are admitted in the future to SGPA programs for the MPA or the Ph.D. in Public Administration may continue to take one comprehensive field from the Technology of Management program. Students who want a larger Technology of Management emphasis are referred to the Center for Technology and Administration, which has been authorized to offer a program for the degree Master of Science in Technology of Management.

General Program Concepts

The M.A. programs are academically oriented, as the beginnings of graduate specialization and as foundations to prepare and test for continuation into doctoral level study. All M.A. students must take *53.610: Theory and Method of Political Research-I* and two research seminars.

The M.P.A. programs are SGPA's professional programs for those who need graduate work for objectives other than preparation for an academic or research-oriented career. The M.P.A. programs are fully academic in quality, but differently designed to prepare students with varying undergraduate majors for a variety of professional career possibilities. The Master of Public Administration program is a package to give the student the fundamental concepts and tools of management rigorous specialized study in management and management-related fields of the student's choice, and an understanding of the relationships of management concepts and public policy. The M.P.A. in Urban Affairs is an interdisciplinary curriculum for the preparation of urban administrators, researchers, and scholars. It includes balanced study of urban politics and administration and substantial work in related social science disciplines. Students who complete an M.P.A. program may continue into doctoral work, if otherwise admissible, but they will have some additional requirements to make up, as compared with the M.A. student. For students in the Public Administration or the Urban Affairs areas, SGPA strongly urges the M.P.A. rather than the M.A. program.

The Ph.D. programs are intentionally academic in emphasis and orientation, in the sense that they are designed as education for graduate-level college teaching and research. Coincidentally, they are intensive professional specializations which apply in the operations of government and political affairs as well as in academic teaching and research. The Ph.D. graduate of these programs will be aided in the performance of governmental executive responsibility, but they are not intended as executive development programs and should not be undertaken specifically as such.

Foreign Graduate Students

Special considerations for potential foreign graduate students:

The School of Government and Public Administration welcomes applications for graduate study from qualified foreign students. It offers special programs in public administration which are designed for and limited to foreign officials and students. While certificates of achievement are offered in these special programs, they do not lead to master's or doctoral degrees.

Regardless of his native background, the potential foreign student is required to have a thorough mastery of the English language and a solid Western culture foundation.

While the foreign student is being considered for admission to this school, he may in some cases, be admitted provisionally with the stipulation that he take at least a semester in residence to provide opportunity for careful assessment of his adequacy and preparation for graduate study. If found unqualified the student may be required to undertake an extensive program of preparation before further consideration for admission. In some circumstances, a supplemental tuition charge may be required to cover the additional costs of faculty time and attention. This, also, may be necessary to provide adequate academic assistance after admission to degree study.

Time Limits for Transfer of Credit

Unless it was part of a completed degree program, graduate work taken more than twelve years before admission or readmission will not be applied or accepted by transfer

Maintaining Matriculation

See page 29

If any student has been inactive for more than five years, he may normally expect to have to retake comprehensive examinations, even if previously passed, and he may be required to retake some or all of the course requirements for this program.

**Master of Arts
and
Master of Public Administration****General Requirements**

See page 25 for general graduate requirements for master's degree programs. The following SGPA requirements also apply for the SGPA master's level programs.

Eligibility

Candidates applying for consideration for admission to the M.A. or M.P.A. program must have an undergraduate record of 1.5 overall on a 3.0 scale with 2.0 in the major. Subject to a 20% ceiling, provisional admission may be granted on a lower undergraduate record or on the basis of 12 hours with a better-than-B average of relevant graduate-level work.

For students who are not admissible to these master's programs on these terms or who do not wish to undertake the full load of master's program requirements, the College of Continuing Education offers graduate certificate programs in Urban Affairs and in the various specialties under the Technology of Management program. See page 134. These certificate programs are less demanding in admission and performance requirements and in course work requirements as compared with the master's degree programs. For an applicant who does not meet the requirements for master's program admission, an impressive performance in a certificate program will be a basis for reconsideration.

Foundation Courses

A background of relevant undergraduate preparation is preferred but not required. The insufficiently prepared student may have to take from 3 to 18 hours of intensive preparation courses as foundation makeup, depending on his particular program and his own academic history. These foundation courses may be graduate courses with graduate credit, or special or undergraduate courses without graduate credit. If required, they are additions to the minimum course and seminar requirements stated below.

For the various master's degree programs, these foundation requirements are the following courses or acceptable equivalents

- **M.A. IN GOVERNMENT**

53 600 Political Thought of the Modern State (3)

53 630 Graduate Introduction to Comparative Government and Politics (3)

53 650 Graduate Survey of American Government (3)

One three-hour international relations course of 500 level or higher

- **M.P.A. IN URBAN AFFAIRS**

53 650 Graduate Survey of American Government (3)

53 653 American Federalism (3) (or a course in urban government)

54 600 The Administrative State (3) or 54 610 Modern Public Management-I (3)

One graduate course in political dynamics

- **M.P.A. AND M.A. IN PUBLIC ADMINISTRATION**

53 650 Graduate Survey of American Government (3)

53 670 Constitutional Law and the Supreme Court (3) or 53 672 Administrative Law and Process (3)

One graduate course in each of two: political theory, political dynamics, psychology.
or

53.650 Graduate Survey of American Government (3)

55.310 Introduction to Data Processing (0)

55.411 Introduction to Management Mathematics (0)

69.400 Managerial Statistics (0)

Although these two groups of courses are optional alternatives under current SGPA requirements, all public administration students are strongly advised to include 55.310, 55.411 (or 41.110 and 41.111), and 69.400 (or 69.202 and 69.300) in their programs and, in addition, 10.400: Use of Accounting Methods (no graduate credit). These subjects are increasingly necessary as basic tools of education and practice in public administration.

Minimum Course and Seminar Requirements

These master's degree programs require a minimum of 30 to 33 graduate course and seminar hours as follows, not including any courses which may be taken as foundation or prerequisite requirements:

- **MASTER OF ARTS IN GOVERNMENT:** 53.610: Theory and Method of Political Research-I (3 hours); one or two further courses as general requirements (3 or 6 hours); three courses in each of two comprehensive examination fields (18 hours); one research seminar in each of the two comprehensive fields (6 hours). Total—30 or 33.

- **MASTER OF PUBLIC ADMINISTRATION IN URBAN AFFAIRS:** Internship or Public Affairs Laboratory (6 hours); one sociology course (3 hours); three courses in each of two comprehensive examination fields (18 hours); one research seminar in one comprehensive field (3 hours); one elective (3 hours). Total—33 hours.

- **MASTER OF PUBLIC ADMINISTRATION:** 54.600: The Administrative State (6 hours); three courses in comprehensive field 54.63: Public Administration (9 hours); one research seminar in field 54.63 (3 hours); three courses in another comprehensive field, as approved (9 hours); one elective course (3 hours). Total—30. (This total is likely to be substantially increased by September 1971.)

- **MASTER OF ARTS IN PUBLIC ADMINISTRATION:** The same as the M.P.A. preceding, but with deletion of the elective requirement and with the additional requirements of 53.610: Theory and Method of Political Research-I (3 hours) and a second research seminar (3 hours). Total—33 or 36 hours.

M.A.-M.P.A. Comprehensive Examinations Requirements

All M.A. and M.P.A. programs require two comprehensive fields, as specified above, with a written examination in both at the end of completion of course and seminar requirements. These fields are listed on page 150. The graduate curriculum beginning on page 213 organized by comprehensive field and shows the full detail of the related courses.

M.A.-M.P.A. Research Requirements

The M.A. research requirement is normally fulfilled by a research paper and a grade of B in the two required seminars, one in each of the two comprehensive fields.

The M.P.A. research requirement is normally fulfilled by a research paper and a grade of B in the one research seminar required in one of the two comprehensive fields.

As an exceptional case, requiring special approval by the dean, this requirement may be met by registration for six hours in 56.797: Master's Thesis Seminar and completion of an acceptable master's thesis. Six credit hours, with a grade of B or better, in 56.630: Government Internship may be accepted in lieu of one three-hour research seminar.

Advisory Relationships

Each master's degree program student will consult with the associate dean for graduate programs for advice and assistance in his program, but each student, in consultation with the associate dean and the faculty member(s) involved, may select a faculty advisor(s) as appropriate for his interests and objectives.

Doctor of Philosophy

General Requirements

See page 25 for the general University requirements for the Ph.D. degree. The following SGPA requirements also apply generally to all SGPA Ph.D. programs.

Ph.D. Eligibility

Candidates applying for consideration for admission to the doctoral program are required to have a master's degree or equivalent with a better-than-B record if the undergraduate record is at least 1.5 overall on a 3.0 scale. If the undergraduate record is below 1.5, the minimum admission standard is 2.3 in a completed master's program or 2.5 in a master's program still in progress. For applicants who are exceptional in some compensating respect provisional admission will occasionally be granted on records which do not meet these standards.

Application

Applicants for Ph.D. programs will normally be considered and admitted only for the fall term of each year. March 1 is the deadline for application. Applicants should take the verbal and quantitative Graduate Record Examination.

Preference will be given to applicants for full-time study, with increasingly selective admission for basically part-time study. While the highly qualified part-time Ph.D. student will be welcomed, he will be expected to devote one year to full-time course and seminar study at some point during the first three academic years after admission.

All applicants, and especially those who intend part-time effort, should be aware that these SGPA doctoral programs will be demanding undertakings. Only those who are very strongly motivated should apply.

If an applicant is marginal by these standards, or if the School has accepted as many Ph.D. students as it currently has room for, the applicant may be offered admission to the related SGPA master's program (even if he already has one master's degree), with later reconsideration for Ph.D. admission on the basis of his new performance. In such cases, except for two master's level comprehensive examinations, the total program will be approximately the same whether in M.A./Ph.D. sequence or direct Ph.D. admission.

Advisory Relationships

Each doctoral degree program student will consult with the associate dean for graduate programs for advice and assistance in his program, but each student, in consultation with the Associate Dean and the faculty member(s) involved, may select a faculty advisor(s) as appropriate for his interests and objectives.

Foundation Courses Requirements

A relevant academic foundation in undergraduate and master's programs is preferred but not required. The minimum course and seminar requirements stated below presume such foundations. The student who comes without them will be required to take substantially more than such minimum requirements, including the possibility of special or undergraduate preparatory courses with no graduate credit. See the foundation courses listed in the preceding statement of master's degree program requirements.

Minimum Courses and Seminars

These SGPA doctoral programs are a requirement for the fulfillment of a carefully designed program profile, not just for the accumulation of an arithmetic total of credit hours. The minimum requirement is 60 hours of graduate course and seminar work, including relevant master's level work but not including dissertation. The significant criterion, however, is the adequacy of the student's preparation for his comprehensive examinations. More likely than not, this will be a need for more than the minimum 60 hours.

As a positive requirement, the Ph.D. student will take any necessary foundation courses. All doctoral students are required to take 53.610 and 53.611, *Theory and Method of Political Research-I and II*, or to show direct equivalents. Each student is required to take one advanced seminar in each of his four comprehensive examination fields.

Except for these requirements and the 60-hour minimum, each doctoral student will be the judge of his own need for any particular course in any of his comprehensive examination fields. If he takes any such course without having had the specified prerequisites, he does so at his own academic risk.

Quality Requirement

An average of better-than-B in all graduate course and seminar work is required. This is higher than the University requirement of 2.0 for required good standing and will normally be interpreted as a requirement of 2.25 or better.

Advancement to Candidacy

The student will apply for advancement to candidacy after 18 hours. He may be terminated at this time if he has failed to maintain the quality requirement or if, for other reasons, the dean and faculty conclude that he does not show high probability of completing the program with high, not just minimal, performance.

The review of the student at the stage of advancement to candidacy will include a review of record and oral examination.

Doctoral Comprehensive Examinations

The comprehensive examination fields are listed on page 151 and the related courses are given in the graduate curriculum. These examinations will include a written examination in each of the three non-dissertation fields, all taken at the same time at the end of course work. The fourth examination, to be taken shortly after the writings have been passed, will be an oral. It will cover primarily the substance of the dissertation field, but it will also be a more general examination of the intellectual breadth and quality of the candidate. With special prior notice to the candidate, the oral may also re-examine areas of special weakness in his written examination performances. This oral examination is entirely separate from the later oral defense of dissertation.

Tools of Research

Two tools of research are required to be certified through proficiency examinations or by completing specific courses prescribed by the department which administers the particular tool. SGPA students must certify one tool, at least, before admission to comprehensive examinations is granted. The other must be certified before final approval of the dissertation proposal.

For the Ph.D. in Government, statistics is presumptively required as one of the two tools. The other tool may be a foreign language, mathematics, or educational and psychological tests and measurements.

For Ph.D. candidates in Public Administration or in Public Administration, Technology of Management, statistics and mathematics are presumptively required as the two tools.

In a rare case for strong reason, the dean may approve a substitution for the presumptive tool requirements of statistics or mathematics.

Dissertation and Oral Examination

A dissertation, accomplished under registration for twelve semester hours in one of the doctoral dissertation seminars listed in the graduate curriculum. This requirement is fulfilled by the completion of an acceptable dissertation and by successful defense of the dissertation in a final oral examination. The basic dissertational standard is that of a high quality of original research in a subject which is directly relevant to the student's doctoral program emphasis.

The subject of the dissertation normally will be expected to lie within the boundaries of one of the candidate's four comprehensive examination fields. At the discretion of the candidate's dissertation committee, the oral examination may include the comprehensive field in which the dissertation is written or the candidate's total graduate program.

Comprehensive Examination Fields

These fields are listed here by number and title only. The details and descriptions of the related courses are given in the full graduate curriculum at pages 213. In this listing, certain fields are marked as specific requirements for particular degree programs. The full details of the student's patterns of requirements and choices are available from the Dean of SGPA.

Politics and Government

Comprehensive examination fields in the curricular area of Politics and Government: (M = Master's, D = Ph.D.)

53 60M-D—Political Philosophy (53.60D required for Ph.D. in Government)

53 62M-D—Science, Technology, and Government (53.62D required for Ph.D. in Public Administration, Technology of Management)

53 63M-D—Comparative Government and Politics

53 70-53-77 (all M-D): These are a group of regional specializations in comparative government which are available only to SIS or other non-SGPA graduate students. For identification purposes, the full style of each of these titles will be: 53.70—M or D: Comparative Government: (Region)

53 7 —Europe-USSR

53 71—Middle East and North Africa

53 72—China-Far East

53 73—South-Southeast Asia

53.74—Latin America

53 77—Africa

53 65M-D—The American Government System

53 66M-D—Political Dynamics

53.67M-D—Public Law

53 68M-D—Urban Affairs (53.68M required for M.P.A. in Urban Affairs)

53.69M-D—Government and the Social Order

Public Administration and Management

Comprehensive examination fields in the curricular area of Public Administration and Management: (M = Master's, D = Ph.D.)

In the following list, 54.60 and 54.61 are continued only for Public Administration students who have previously been admitted. For all such students entering in September 1970 or later, 54.63 will be required instead of 54.60 and 54.61.

54.60M-D—The Governmental Administrative Establishment

54.61M-D—The Management of the Governmental Administrative Establishment.

54.62M —Urban Planning and Development (a special field, available only at the Master's levels as an option for the M.P.A. in Urban Affairs)

54.63M-D—Public Administration (The major comprehensive field for the M.P.A. and the Ph.D. in Public Administration for students entering in September 1970 and after.)

(Additional specialized fields in Public Administration such as governmental finance, public personnel, or a specialized line or staff function may be approved after consultation with the Associate Dean for Graduate Programs. Students who have entered these programs prior to September 1970 may continue with these fields as they have been stated in previous catalogs.)

(Ph.D. students in Public Administration who enter in September 1970 or after will take this 54.63 field as the major field, two fields in government including either the American Governmental System (53.65) or Comparative Government and Politics (53.63); and, presumptively, a field from the Technology of Management group. With special permission, a field from a related social science such as economics or sociology may be substituted for the second government field or for the Technology of Management field.)

54.64M-D—Governmental Financial Policy and Program

54.65M-D—Public Personnel Administration

(54.64 and 54.65 will normally be approved only for the M.P.A. or the M.P.A.. Technology of Management)

54.67M-D—One specialized line or staff function (Available only with special approval, and only if adequate faculty capability for direction of study and research in the subject can be found within the SGPA, The American University, or the arrangements of the Consortium of Universities.)

Technology of Management

These comprehensive examination fields are available from the Center for Technology and Administration (See page 134.)

School of Nursing

Correspondence Directory: LAURA KUMMER, *Dean*

Professor: Laura Kummer

Assistant Professor: Nancy Davenport, Gita Dhillon, Susan Finkelstein, Patricia Finn, Susan Gebhardt, Josephine Gimble, Laverne Neiswender, Mildred Randall, Edith Summerlin, Frances Weed, Barbara Wilkas

Field of Study

Nursing.

Undergraduate Degree

Bachelor of Science

Admission

See page 13.

Health Requirements

In addition to meeting all general University health requirements students are required to keep current immunizations for diptheria, tetanus, poliomyelitis, and small pox. Annual chest X-rays are required.

Transportation

Students assume responsibility for transportation between the University and various facilities used for laboratory and clinical experience. Students majoring in Nursing will find it desirable to have the use of an automobile during the junior and senior years; it is a necessity during the semester in which students are enrolled in the public health nursing course.

Curricular Plan

FALL SEMESTER			SPRING SEMESTER		
			<i>Freshman Year</i>		
15.120	Chemistry	1	15.130	Chemistry	1
15.121	Chemistry Lab	1/4	15.131	Chemistry Lab	1/4
23.100	English Comp.	1	23.101	English Comp.	1
65.200	Intro. to Sociology	1	57.200	Gen. Psychology	1
9.110	Biology	1		Elective	1
		4 1/4			4 1/4

Sophomore Year

46.200	Nursing I	2
9.330	Anatomy & Physiology	1
9.340	Microbiology	1
		4

46.201	Nursing II	2
9.331	Anatomy & Physiology	1
46.440	Indiv. & Group Dynamics	1/2
	Elective	1
		4 1/2

Junior Year

46.300	Nursing III	3
57.400	Dev. Psychology: Childhood	1
		4

46.310	Maternal-Child Nursing	3
	Elective	1
		4

Senior Year

46.340	Psychiatric Nursing	2
46.400	Public Health Nursing	2
		4

46.410	Problem Analysis in Patient Care	1
46.420	Organization of Patient Care Services	1
46.430	History & Analysis of Nursing	1
	Elective	1
		4

Minimum—33 courses

School of International Service

Correspondence Directory: Robert W. Gregg, *Dean*—SIS 100
William C. Cromwell, *Associate Dean*—SIS 111
Steven H. Arnold, *Assistant Dean*—SIS 103

Fields of Study

International relations (general), contemporary international relations, diplomacy and foreign policy, international communication, international law, international organization, theory of international relations, international labor, area studies (Africa, Eastern Europe, Far East, Latin America, Middle East, South and Southeast Asia, Soviet Union, Western Europe).

Full-time Faculty

Professor: Mary E. Bradshaw, Richard Butwell, Harold E. Davis, Charles H. Heimsath, Warren S. Hunsberger, Marion D. Irish (Charles O. Lerche Professor), Whittle Johnston, Kenneth P. London, Michael Lindsay, Albert D. Mott, F. J. Piotrow, Ralph L. Powell, Darrell D. Randall, Abdul Aziz Said, Durward V. Sandifer (Emeritus), Samuel L. Sharp (University Professor), A. L. Vilakazi, Lawrence W. Wadsworth, Jr., (Grazier Memorial Professor), Millidge P. Walker, Takehiko Yoshihashi.

Associate Professor: William C. Cromwell, Theodore A. Couloubis, John J. Finan, George L. Harris, Charles McLaughlin, Hamid Mowlana, Alan R. Taylor, Brady B. Tyson, Larman C. Wilson.

Assistant Professor: Dana L. Clarke, Linda Lubrano Greenberg, Douglas L. Johnson, Nicholas G. Onuf

Instructor: Stephen H. Arnold

Undergraduate Degrees

The undergraduate program of the school has been designed to offer the undergraduate student a broad foundation in the liberal arts as well as preparation for the study of international relations. The school offers the Bachelor of Arts degree with a major in international studies. In addition, a joint degree program is offered in languages and area studies, wherein students are concurrently enrolled in the school and the Department of Languages and Linguistics of the College of Arts and Sciences.

Bachelor of Arts

IN INTERNATIONAL STUDIES

A single flexible major in international studies is offered for all students exclusively enrolled in the school. All courses for the major (exclusive of 33.200 Introduction to World Politics I) and the related interdisciplinary studies are to be selected in consultation with the student's academic advisor, with individual programs designed to meet the needs and interests and challenge the talents of each student.

Proficiency in Communications

- English Composition & Reading I & II (23.100, 23.101)—2 courses (University Requirement).
- Proficiency in written English, to be considered a professional skill: May be demonstrated in one of the following: senior thesis or paper written in a senior SIS course, seminar or directed individual study.
- Modern language: Students are required to attain facility in one modern language through the intermediate level in addition to English. This requirement may be satisfied either by examination (administered by the Department of Languages & Linguistics of the College of Arts and Sciences) *OR* by four semesters of course work (elementary and intermediate).
- All students majoring in international studies are urged (but not required) to acquire some skill in statistics, data processing and/or knowledge of new tools for research and analysis in international studies, including quantitative analysis.

Major Courses

Eight SIS courses are required, excluding American civilization, Western tradition and introduction to the non-Western world, which may be included in the related interdisciplinary studies below.

33 200 Introduction to World Politics I. The Only required course in the major, it is considered a prerequisite to other SIS courses.

The remaining 24 courses for the major will be selected from the SIS offerings according to the academic interests and professional perspectives of the student in consultation with the student's academic advisor. Letter grades are required for all courses counted in the international studies major (the pass/fail option does not apply to major courses).

Related Interdisciplinary Studies

Eight courses are required. It is recommended that students choose from at least two of the following fields and it is further recommended that each student accumulate at least 4 courses of work in one of these fields: anthropology, communications, economics, foreign area studies (non-SIS), government and public administration, history, psychology, sociology, technology and administration.

NOTE: Included in this category are courses taught in SIS in American civilization, Western tradition and introduction to the non-Western world

IN LANGUAGES AND AREA STUDIES

These degree programs are administered jointly with the Department of Languages and Linguistics of the College of Arts and Sciences. The language-area groups currently available are: (a) Russian and U.S.S.R., (b) Spanish and Latin America, (c) French or German and Western Europe, (d) Czech and Hungarian and East Europe, (e) Hindi or Indonesian or Thai or South Vietnamese and South and Southeast Asia, and (f) Chinese or Japanese and the Far East.

PROGRAMS (A), (B), (C), (D):

Prerequisite

Two years of four meetings-per-week language of the area, or the equivalent.

Required Courses

8 course units in the following is required

Foreign language conversation and composition, I and II
Civilization of an area, I and II (1 and 2)

Three approved area subject courses, seminars or colloquia (1-1-1)

Related Courses

6 course units from the following fields are required (inclusive of the one or two term course(s) required for further work in the discipline which the student wishes to emphasize):

Anthropology of the area
Economics of the area
Government and politics of the area
International communications
(up to 2 units)

History of the area
International relations of the area
Literature of the area
Second language of the area

Examination

Oral comprehensive examination to test language competence. Graduate Record Examination is optional.

Electives

Required are sufficient courses to complete a minimum of 32 course units.

PROGRAMS (E) and (F):

Required courses

13 course units in the following course work is required:

- Elementary language, I and II (1-1)
- Intermediate language, I and II (1-1)
- Foreign language conversation and composition, I and II (1-1)
- Introduction to the non-Western world (1)
- Introduction to an area I and/or II (1 or 2)
- One or two approved area subject courses or seminars (1 or 2)

Related courses

3 course units from the following fields are required.

- | | |
|--------------------------|--|
| Anthropology of the area | Government & politics of the area |
| Economics of the area | International relations of the area |
| History of the area | Intermediate and/or advanced year of a related European language |
| | Second language of the area |

Examination

Oral comprehensive examination to test language competence. Graduate Record Examination is optional.

Electives

Required are sufficient courses to complete a minimum of 32 course-units.

Graduate Degrees

The School of International Service is committed to promoting high scholarly achievement in its graduate programs. Its faculty strives to imbue the graduate student body with superior standards of scholarship and research. The aim is to give students a sound substantive preparation and a thorough grounding in the methodology of each field of concentration at the graduate level.

Admission (See page 17.)

Admission to graduate study in the School of International Service is restricted to students who have earned at least a "B" average in a relevant undergraduate major as well as a cumulative "B" average in all undergraduate work at an accredited institution. A relevant major is defined as a minimum of 24 hours in subjects appropriate to the degree program selected. All applicants for the master's degree programs are required to take the Aptitude Section of the Graduate Record Examination. Students who fall short of the 24 hours of relevant graduate or undergraduate work will be expected to complete additional course work at The American University, to be determined at admission or upon selection of a major program. Applicants must supply at least one letter of reference from a person capable of evaluating their undergraduate course work.

Applicants for the Ph.D. degree must possess a master's degree, or its equivalent, earned in a relevant discipline from an accredited institution with a cumulative average in all graduate courses of substantially higher than "B." Applicants must supply at least two letters of reference from persons capable of evaluating their graduate course work.

Full-time and part-time graduate students, whether aiming for the master's or doctoral degree, will be admitted within the educational capacity of the School of International Service. Preference is given to those applications received before March 1st for summer and fall admission, and before December 1st for spring admission.

Advancement to Candidacy

Admission to a graduate program does not entail automatic advancement to candidacy for a graduate degree. Each is a separate step, and advancement is a discretionary act which takes place upon completion of specified requirements.

At the time of advancement the student selects, in consultation with his program advisor, his comprehensive examination fields and the required tool—or tools—of research. He then files the appropriate form with the Office of the Dean.

The candidate applies separately for his comprehensive examinations (before the deadline dates announced in the *Schedule of Classes Bulletin*), filing an appropriate form with the Dean of Graduate Studies after securing the written approval of the dean of the school. Students must be advanced to candidacy before they can take comprehensive examinations. The student should apply for advancement to candidacy immediately before the beginning of the semester in which comprehensive examinations will be taken, or sooner if the student is eligible according to the requirements listed in the following three paragraphs.

Master's degree students may apply for advancement to candidacy when they have completed between 12 and 18 hours of graduate work at The American University (with an average of "B" or better), have completed all deficiencies specified at the time of admission, and have made up all incomplete course work. If at the end of 18 hours, or at any time thereafter, the student's average is less than "B," he is subject to dismissal from the University.

Students may transfer up to six hours of graduate work taken at another approved institution provided that the credits are relevant to the student's program and provided that a "B" or better was earned for each course.

Doctoral degree students who have completed 30 hours of graduate work, including the master's program if this degree has been secured, and at least 15 additional hours *in residence* at the University, may apply for advancement to candidacy if their grade average in all graduate work taken at the University is better than "B." Application *must* be made not later than the end of the semester in which 18 semester hours of graduate work will have been completed in residence at the University, subsequent to admission to the doctoral program. If a student is ineligible for advancement at that time, he forfeits his status as a doctoral student. By the same token he forfeits his status if the grade average falls below the minimum requirement at any time thereafter.

If the master's degree has been received at the University, a doctoral degree student *may* apply for advancement to candidacy after completing 12 graduate hours beyond the master's degree. However, he *must* apply no later than the end of the semester in which 18 semester hours of graduate work will have been completed beyond the master's degree.

Transfer Credit

Transfer credit for prior work taken at other institutions is usually granted at the time of advancement to candidacy. In order to be transferred, the credits earned elsewhere must be graduate level courses in which a grade of "B" or better was earned, taken after the student received the bachelor's degree, and they must be judged appropriate to the student's degree program. Official transcripts must be provided to support requests for acceptance of transfer credit.

Comprehensive Examination Fields

The School of International Service offers the following fields for comprehensive examinations at the master's and doctoral levels. All applicants for the examination must use the following list regardless of previous admission dates or advancement to candidacy:

- 33.001 International Law
- 33.002 International Organization
- 33.003 Theories of International Relations and Comparative Politics
- 33.004 National Security Policy (M.A. and M.I.S. candidates only)
- 33.010 Foreign Policy Analysis: The United States
- 33.011 Foreign Policy Analysis: Western Europe
- 33.12A Foreign Policy Analysis: Soviet Union
- 33.12B Foreign Policy Analysis: Eastern Europe
- 33.013 Foreign Policy Analysis: Middle East and North Africa
- 33.014 Foreign Policy Analysis: Africa
- 33.015 Foreign Policy Analysis: Latin America
- 33.016 Foreign Policy Analysis: Far East
- 33.017 Foreign Policy Analysis: South and Southeast Asia
- 33.021 Area Comprehensive: Western Europe
- 33.22A Area Comprehensive: Soviet Union
- 33.22B Area Comprehensive: Eastern Europe
- 33.023 Area Comprehensive: Middle East and North Africa

- 33.024 Area Comprehensive: Africa
 33.025 Area Comprehensive: Latin America
 33.026 Area Comprehensive: Far East
 33.027 Area Comprehensive: South and Southeast Asia

Note At the option of the student, comprehensive examinations may be taken during one examination session or spread over two *consecutive* examination sessions.

Language Requirement for all Graduate Degrees

All candidates for the M.A. in International Studies and the Master of International Service must pass a tool of research examination in one modern foreign language. Candidates for the M.A. in Far Eastern Area Studies must pass a tool of research examination in a language of the area. Doctoral candidates must pass a tool examination in at least one modern foreign language. The Ph.D. language examination may be somewhat more difficult in content and wording than the examination for the master's degree, but the format of the examination is similar.

The examinations consist of a written translation into English of a foreign language text taken from the area of the student's specialization. Time allotted is one hour. The use of a dictionary is permitted.

Before the Department of Languages and Linguistics can administer the tool examination, the candidate must fill out the "Approval of a Tool of Research" form and receive approval from the dean of the school for the language he has selected. The student may select only those foreign languages for which an examiner is available. If the Department of Languages does not have a qualified examiner, the school may solicit the services of an outsider.

Both master's and Ph.D. candidates who have a native or near native proficiency in the foreign language approved as a tool are exempt from the tool examination. Such exemption must be certified by the Department of Languages and Linguistics.

The language requirement for all master's degrees will be considered met for candidates who have attained a "3-level" of proficiency in both speaking and reading a modern foreign language, as certified by the Foreign Service Institute of the Department of State, doctoral candidates must have attained a "4-level" of proficiency in speaking and reading a modern foreign language, as certified by the Foreign Service Institute. Tests conducted more than three years prior to the date on which the candidate passes his comprehensive examinations are not acceptable.

Doctoral candidates who have completed the second semester of a European language at the advanced level or the second semester of a non-European language at the intermediate level within the three years prior to the date on which the candidate passes his comprehensive examinations, with a grade of "B" or better at a recognized institution, may be exempt from the tool examination.

With special approval of the dean of the school and the appropriate tool examiner, the results of tool examinations passed at other institutions within the three years prior to certified completion of the comprehensive examinations may be accepted as fulfillment of the tool requirement. Documents certifying such results must be submitted.

Master's candidates who have completed the second semester of the intermediate level in a European language or the second semester of intensive elementary work in a non-European language (at least 12 semester hours) within the two years prior to the date on which they passed their comprehensive examinations, with a grade of "B" or better at a recognized institution, may be exempt from the tool examination.

With special approval of the dean of the school and the appropriate tool examiner, the results of tool examinations passed at other institutions within the two years prior to certified completion of comprehensive examinations may be accepted as fulfillment of the requirements. Documents certifying such results must be submitted.

Candidates for the Master of Arts in Languages and Area Studies satisfy their language tool of research requirements by virtue of successful completion of their degree programs.

Graduate Degree Programs Offered

Graduate degrees offered by the School of International Service are:

- (1) the Master of Arts in International Studies,
- (2) the Master of Arts in Languages and Area Studies (Latin America, South and Southeast Asia, Soviet Union and Eastern Europe, and Western Europe),

- (3) the Master of International Service,
- (4) Master of Arts in Far East Area Studies, Latin American Studies, and
- (5) the Doctor of Philosophy in International Studies.

The Master of International Service (M.I.S.) is a professional degree designed to prepare students for careers both in the United States and abroad. The Master of Arts in International Studies is an academic degree designed to prepare students for subsequent doctoral work and for careers in teaching. The Master of Arts in Languages and Area Studies, which is administered jointly by the School of International Service and the Department of Languages and Linguistics of the College of Arts and Sciences, contains features which are both professional and academic in nature. It requires mastery of a language or languages of an area together with an integrated knowledge of the history, society, economy, and politics of that area. The Master of Arts in Far East Area Studies is administered by the School of International Service and is offered to those students who are interested in an integrated approach to the study of China, Japan, and Korea. The program in Latin American Area Studies is similar in concept and approach.

The degree program for the Doctor of Philosophy in International Studies emphasizes a disciplinary core while permitting the student considerable choice in selecting his fields of specialization. The degree draws its primary content from the fields of international relations and comparative politics. Inherent in its requirements is the recognition that the international behavior of nations is increasingly a product of their internal political dynamics. The degree in International Studies entails foreign area specialization—the exact amount depending upon the needs and objectives of the student. The school also encourages its Ph.D. candidates to develop competence in an additional discipline of the social sciences, such as history, economics, anthropology, or sociology.

Master of Arts IN INTERNATIONAL STUDIES

Course Requirements

Required is a minimum of 30 hours of approved graduate credit, exclusive of deficiencies assessed at the time of admission, of which three to six may be in the Master's Thesis Seminar (33.797). All graduate students in international studies are required to take International Relations and Comparative Politics: Methods and Approaches (33.610).

Language Requirement

Candidates must pass a tool of research examination in one modern foreign language. If they demonstrate proficiency in a language, they may, in addition, offer an approved quantitative tool. (For details of language requirements, see page 26.)

Comprehensive Examinations

Two written comprehensive examinations are required. (1) Theories of International Relations and Comparative Politics is required of all candidates for the Master of Arts in International Studies. (2) The second field is selected by the student in consultation with his faculty advisor and must be certified by the dean. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions. See page 158 for a list of approved comprehensive fields administered by the School of International Service.

Research Requirement

All candidates for this degree must write either a thesis, which may earn three or six semester-hour credits of the 30 required for the degree, or two substantial research papers (non-thesis option) prepared in conjunction with .600 or .700 level seminars, or two .690 independent research projects, or a combination of these. Students must apply for the non-thesis option in the office of the dean at the beginning of the semester in which the projects are to be written.

Master of Arts

IN LANGUAGE AND AREA STUDIES

This degree is administered jointly with the Department of Languages and Linguistics of the College of Arts and Sciences (see page 83). The language-area groups currently authorized under the degree program are as follows:

- (A) French or German Language—Western Europe Area Studies
- (B) Russian Language—USSR Area Studies
- (C) Spanish Language—Latin American Area Studies
- (D) Czech or Hungarian—Eastern Europe Area Studies
- (E) Hindi, Indonesian, or Thai Language—South and Southeast Asia Area Studies

PROGRAMS (A), (B), (C) and (D)

Prerequisite

The bachelor's degree or its equivalent is required. The student's background must have included three years of an appropriate language and one year (6 credits) of an area related discipline, such as history, politics, geography, etc.

Required Courses

A total of 30 hours of approved graduate work exclusive of deficiencies assessed at the time of admission is required:

- 12 hours in literature and/or area subject courses taught in a language of the area.
- 12 hours in area subject courses taught in English in the School of International Service, other schools and departments of The American University, or the Consortium of Universities.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the Office of the Dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Candidates must take an oral examination conducted in the area language to demonstrate their readiness for the comprehensive. Consult the Department of Languages and Linguistics.

Comprehensive Examination

Candidates must take one interdisciplinary examination in their area field. Consult the School of International Service.

PROGRAM (E)

Prerequisites

The bachelor's degree or its equivalent is required. The student's background must have included at least two years of an appropriate language and one year (6 credits) of an area related discipline, such as history, politics, geography, etc.

Required Courses

6 hours in literature and/or area subject courses taught in a language of the area required.

18 hours in area subject courses (taught in English) in the School of International Service, in other schools and departments of The American University, or in the Consortium of Universities are required. With special permission, up to 6 hours may be earned by taking the third (Advanced) year of an appropriate area language.

Research Requirement

All candidates for this degree must write either a thesis, credited with from three to six semester hours of the 30 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600 and .700 level seminars, or two independent research projects (.690), or an approved combination of these. Students must apply for the non-thesis option in the office of the dean of the School of International Service at the beginning of the semester in which the paper is written.

Qualifying Examination

Candidates must take an oral examination conducted in the area language to demonstrate their readiness for the comprehensive. Consult the Department of Languages and Linguistics.

Comprehensive Examination

Candidates must take one interdisciplinary examination in their area field. Consult the School of International Service.

Master of Arts**IN FAR EAST AREA STUDIES****Course Requirements**

Minimum of 30 semester hours of approved graduate work, three to six of which may be in Master's Thesis Seminar: Area Studies (33.797).

Language Requirement

Candidates for this degree must pass a tool of research examination in a language of the area.

Comprehensive Examinations

Written comprehensive examinations in two fields approved in consultation with the student's advisor and the dean are required:

a) a general comprehensive in the area (successful completion of the final examination in the integrated area seminar will be accepted in lieu of the area comprehensive for those students who have taken both semesters of the seminar and who are candidates for the area studies degree. To qualify for this exemption, the final examination in the seminar must have been taken within one calendar year of the date of the other comprehensive examinations).

b) a special field within the area (e.g., cultural area analysis, economics, government, history, international relations, literature or certain other fields by petition).

These examinations are taken when the candidate has completed the course work for the degree or during the semester in which he is completing the course work. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions.

Research Requirement

All candidates for this degree are required to write either a thesis credited from three to six semester hours within the 30 semester hours required for the degree, or two intensive research projects (non-thesis option) written in .600 or .700 level courses or seminars, or two .690 Independent Research Projects. Students must apply for the non-thesis option in the office of the dean at the beginning of the semester in which the projects are to be written.

Master of International Service**Prerequisites**

Students who have already completed satisfactorily the school's requirements for the Bachelor of Arts in International Service degree should be able to obtain the Master of International Service degree in one further academic year. Graduates of other colleges or universities are required to fulfill special requirements for the acceptance of equivalent courses taken at other schools, or to take courses at the University in lieu of those not approved as equivalent. Students who have not completed an undergraduate curriculum substantially similar to these requirements will normally require one and one-half years to obtain the degree. The M.I.S. is considered to be a terminal graduate degree.

Language Requirement

Candidates for the M.I.S. degree must pass a tool of research examination in one modern foreign language. The examination consists of a written translation.

Comprehensive Examinations

All graduate students in the international service program must take two written comprehensive examinations. Students are permitted to take both examinations in one session or they may take one examination per session in two consecutive sessions. See the list of the

school's examinations on page 158. The examinations required for each professional option are as follows:

Foreign Service:

- A. One of the following:
International Organization
International Law
National Security Policy
International Economics
- B. Either Foreign Policy Analysis: The U.S. *or* U.S. Diplomatic History

Business Representation Overseas:

- A. International Economics *or* an approved field in economics
- B. International Labor Problems *or* International Business

International Christian Service:

- A. An area comprehensive
- B. One of the following:
Cultural Analysis: (an area)
Economic Development Policy
International Law
Theories of International Relations and Comparative Politics
Foreign Policy Analysis of an area
Examinations offered by the Philosophy and Religion departments of the College of Arts and Sciences.

Overseas Representation:

- A. An area comprehensive
- B. One of the following:
American Civilization
Foreign Policy Analysis: The U.S.
U.S. Diplomatic History
Cultural Analysis: (an area)
International Communications

Overseas and International Labor:

- A. International Labor Problems
- B. Labor in an area

Intelligence Research and Analysis:

- A. An area comprehensive
- B. National Security Policy

Research Requirement

All candidates for this degree are required to write either a thesis, which may earn three or six semester hours of the total hours required for the degree, or to write two substantial research papers (non-thesis option) prepared in conjunction with .600- or .700-level seminars, or to write two .690 independent research projects, or an approved combination of these. Students must apply for the non-thesis option in the office of the dean of the School at the beginning of the semester in which the project is to be written. Students may petition the Committee on Academic Practices, with the approval of the appropriate program chairman, to have a single substantial research paper, written in conjunction with one of the professional seminars listed above, approved as satisfying the research requirement of the Master of International Service degree.

Course Requirements

All graduate students in the International Service Program are expected to complete all courses listed under *one* of the following professional options unless they are presented at admission or satisfied by courses included in the undergraduate program as equivalent.

FOREIGN SERVICE

Courses:

- Problem Papers in American Diplomacy (33.563)—3 hours, with 3 additional hours optional.
- United States Foreign Policy (33.630), or U.S. Diplomatic History (29.552-553)—3 hours.
- Seminar in American Civilization (33.604)—3 hours.
- Political Theory (including treatment of theory or practice of communism)—3 hours.

International Economics: one course selected from International Economics or Economics Systems as offered by the Department of Economics—3 hours.

Note: Students who have not completed an acceptable course in international law or international organization at the time of admission will be expected to take international law or organization as a part of their graduate program.

Seminars

Students in the 45 credit hours program will be required to take 12 hours of seminar work from available offerings; those in the 30 hours program are required to take 6 hours. Integrated seminars may be taken for 6 hours credit in that semester in which history or international relations is included.

30 Hour Program One approved seminar (6 hours) or two or three seminars in related fields.

45 Hour Program 1) One approved 6 hours seminar plus either a second 6 hour seminar *OR* two 3 hour seminars in related fields, *OR* 2) One 3-6 hour area seminar (South and Southeast Asia—3 hours) plus another 6-9 seminar hours, the latter preferably not in the same geographical area as the 3-6 hour seminar.

BUSINESS REPRESENTATION OVERSEAS

Basic Courses

Students must complete 24 hours of courses required in the undergraduate business representation overseas professional option unless previously taken or unless substitutes have been approved.

Advanced Courses

Seminar in International Business (11.726).

Current International Economic Problems (19.752)—3 hours.

Comparative Labor Relations (19.574)—3 hours.

Seminars

One approved seminar (6 hours) or two 3 hour seminars in related fields.

INTERNATIONAL CHRISTIAN SERVICE

Area Specialization

12 hours of integrated area seminars or comparable courses related to one of the following: Africa, Middle East and North Africa, Far East, South and Southeast Asia, Latin America, Western Europe. Students are also expected to include the cultural area analysis courses related to the area. Exceptions can be made in consideration of previous courses and overseas experience.

Courses

World Human Needs I and II (33.543-544)—6 hours.

Other courses may be selected from the catalogs of The American University, Wesley Theological Seminar, and the Consortium of Universities. Consultation is recommended for adapting the graduate program to the student's special interests and needs.

OVERSEAS REPRESENTATION

Courses

Seminar in American Civilization (33.604)—3 hours.

Area Specialization

6-12 hours. This requirement can be fulfilled by taking either integrated area seminars or courses or a combination of both in one of the following areas: Africa, Far East, Latin America, Middle East, South and Southeast Asia, Western Europe.

International Communication and Mass Media:

6 hours selected from the following

Psychological & Cultural Bases of International Politics (75.633)

Foundations of International Communications (75.639)

International Political Communications (75.650)

Information & Persuasion in Cross Cultural Contacts (75.638)

Mass Media and Society (17.503)

International Communication Systems (17.531)

News Reporting (17.320)

Feature Article Writing (17.325)

International Economics & Labor—3 hours elected from the following:

- International Economics: One course selected from international economics or economic systems as offered by the Department of Economics
- World Labor and Contemporary International Politics I or II (33.541-542)
- History of International Labor Movement (75.672)
- Social and Labor Problems of Underdeveloped Areas (75.676)

Foreign Policy and Political Theory—6 hours elected from the following (including one course on the theory and practice of communism):

- History of U.S. Foreign Policy I or II (29.552-553)
- Comparative Foreign Policy I (33.302)
- United States Foreign Policy (33.630)
- Contemporary International Politics (33.650)
- Values and Objectives in Foreign Policy (33.519)
- Political Theory of the Modern State (53.600)
- Marxism and Non-Marxist Socialism (53.603)
- Seminar in Sino-Soviet Relations (33.787)

OVERSEAS AND INTERNATIONAL LABOR*Basic Courses:*

- World Political Geography (33.308)
- Political Thought of Modern State (53.600)
- International Economics (19.311) OR Comparative Economic Systems (19.558)
- Contemporary International Politics (33.4-650)
- International relations of an area

Labor Courses:

- Labor Statistics (19.575)
- Labor in Western Europe (33.645)
- History of the International Labor Movement (75.672)
- World Labor and Contemporary International Relations I, II (33.641-642)
- History of the U.S. Labor Movement

INTELLIGENCE RESEARCH AND ANALYSIS

Area Specialization: This requirement may be met by taking the integrated area seminar (both semesters) or through single courses totaling 12 hours.

Courses and Seminars:

- Seminar on National Security Policy (75.652)
- Workshop in Intelligence Research and Analysis (33.679)

Doctor of Philosophy**IN INTERNATIONAL STUDIES****Course Requirements**

A minimum of 72 hours of graduate work is required, exclusive of deficiencies assessed at the time of admission, of which a total of up to twelve may be in the Doctoral Dissertation Seminar (33.799). A minimum of 18 hours must be in courses open only to graduate students (.600 and .700 level).

Tools of Research

Each candidate must satisfy examiners that he is proficient in two tools of research. One of these must be a modern foreign language; the second may be another foreign language, statistics, or another quantitative tool approved by the dean. (For details of language requirements, see page 26.)

Comprehensive Examinations

Candidates must take written examinations in four fields as follows:

- A. Theories of International Relations and Comparative Politics
- B. One of the following:
 1. International Law
 2. International Organization
 3. Comparative Government

4. International Economic Policy
 5. Economic Development Policy
 6. A core field, at the Ph.D. level, from anthropology, history, or sociology, provided that the examination is primarily theoretical and methodological in content.
- C. A field involving foreign policy analysis and focusing on foreign policy formulation in one of the following areas:
- The United States
 - Western Europe
 - The Union of Soviet Socialist Republics
 - Eastern Europe
 - Middle East and North Africa
 - Latin America
 - Far East
 - South Asia and Southeast Asia
- D. A second field from B or C above or another field selected in consultation with a faculty advisor and certified by the dean.

See page 158 for the school's list of examination fields. Other fields will be found in the appropriate school or departments in the *Catalog*. NOTE: Candidates who have received a double distinction on the same examination taken at the master's level at SIS may waive a comprehensive examination from categories B, C, and D. Field A, Theories of International Relations and Comparative Politics, may not be waived. See page 27 for details of the grading system.

Students are permitted to take all four examinations in one session or they may take two examinations in each of two *consecutive* sessions.

Research Requirement

All candidates for the degree must write a dissertation and defend it orally. During the oral examination, dissertation committee members may test the candidate's knowledge not only of the subject of the dissertation, but of related materials as well. All doctoral candidates must take the Doctoral Dissertation Seminar (33.799) for as many as twelve hours, which normally are deducted from the 72 grade course hours required for the degree.

See page 28 for further details concerning the doctoral dissertation.

SPECIAL FEATURES OF THE SCHOOL

Institute on the United States in World Affairs

The institute is a summer program offered under the auspices of the School of International Service. Beginning in 1945, the Institute has met each summer at The American University. The goals of the Institute are: (a) to study the processes of formulation and methods of implementation of U.S. foreign policy, (b) to analyze the principal issues involved in the position of the U.S. in world affairs, (c) to provide tools for more advanced theoretical study and a capacity to deal more competently with international relations. The program involves a combination of lectures, seminars, reading, and field trips. The Director of the Institute is Dr. Abdul A. Said, Professor of International Relations. For additional information write to the Director, USWA, School of International Service, The American University, Washington, D.C. 20016.

Center for South and Southeast Asian Studies

The Center for South and Southeast Asian Studies, established in 1965 in the School of International Service, administers a program of studies and sponsors research on the countries in south and southeast Asia. The major disciplines in the social sciences and humanities are represented in the center faculty or are under development as components of center programs. Graduate students may take their degrees in the participating departments or in the School of International Service. At the M.A. level, students may work for a language and area degree; at the doctoral level, they may include a large amount of area work in their program for the Ph.D. in International Studies. Programs provide a combination of disciplinary, area, and language training. The resources of The American University in South and Southeast Asian Studies are supplemented by those of the Consortium of Universities.

The Director of the Center is Dr. Richard Butwell, Professor of Southeast Asian Studies.

Washington International Semester Program

This program of study is for advanced students enrolled from cooperating institutions, through formal inter-institutional agreements and consists of a seminar on Washington in World Affairs, an individual research project and two regular courses at The American University. The program provides the opportunity for each student to deepen his understanding of international affairs as they are seen from Washington and to become familiar with the sources for study of specific foreign policy issues. Students study and observe the manifold governmental, international, and private activities which contribute to the United States' posture in world affairs. The Director is Dr. F. J. Poitrow, Professor in the School of International Service. For further information, write to the Director, Washington International Semester Program, School of International Service, The American University, Washington, D.C.

COURSES OF STUDY

The course offerings of the school are listed in the course section of this catalog under the following heading:

- American Civilization
- Area Studies
- International Relations
- World Human Needs

See page 263 for offerings of the center for South and Southeast Asian Studies.

The courses (listed on page 230) are divided into the general categories which comprise the study of international relations and geographical areas in the School of International Service. The undergraduate courses precede the graduate courses of the school. Graduate seminars at the .700 level all carry prerequisites for admission, usually 9-12 hours of relevant courses. Such seminars may be taken more than once for credit provided that the seminar content is non-duplicating. Courses at the .600 and .700 level presuppose 9-12 hours of lower level courses as prerequisites or taken simultaneously with permission of the instructor. Courses and seminars taught at the .600 and .700 level are limited to graduate students who have been admitted to a degree program, and qualified seniors whose curriculum requires such courses. Non-degree students may not enroll in these courses. Courses at the .500 level require a minimum of six hours of relevant undergraduate courses as prerequisites or permission of the instructor.

It is the policy of the School to schedule separate courses and seminars for graduates and undergraduates. The differentiation is one of level and depth rather than of substantive content. No student may receive credit for a graduate level course if the same course was taken for credit at the undergraduate level. Any course or seminar (except those at the .700 level) may be offered at the .400, .500, or .600 level.

Geographical Area Courses

The introductory courses comprise surveys of the history, government, geography, culture, institutions and foreign relations of the area. The integrated area seminars, which may carry up to 6 hours credit each semester with varying emphasis as appropriate, treat organically (a) the geography, demography, and ecology of the area, (b) social structure, (c) historical roots, (d) religion, (e) culture, (f) economy, (g) government and politics, (h) contemporary international politics, and (i) one or more studies of particular countries within the area. Opportunity is given in outside reading and research projects for the individual student to differentiate according to his own needs and interests, either on a subject matter basis or on a country basis.

Students taking the integrated area seminars may not obtain academic credit for overlapping courses in special aspects; if such courses have been taken, the integrated area seminar will carry correspondingly less credit. Full inquiry should be made prior to or at the time of registration.

All ".700 level" area seminars ordinarily require as prerequisites either the relevant integrated area seminar or nine to twelve hours of course seminar work in the field of the area. They may be taken twice for credit.

Students who are interested in area studies are urged to explore the offerings of other divisions of the University, such as the School of Government and Public Administration and Departments of Anthropology, Economics, English, History, and Sociology and the College of Arts and Sciences, for specialized courses in each of the geographical areas.

Courses of Instruction

The following pages list the courses of instruction. In general, the following principles apply.

The digits to the left of the decimal point of a course number represent the department, school, or college offering the course, as indicated in parentheses below. Of the last three digits, .100, .200, .300, and .400 indicate an undergraduate course. Courses numbered .500 are graduate courses to which advanced undergraduates may be admitted. Courses numbered .600 and .700 are graduate courses to which undergraduates normally are not admitted.

Independent study, research and reading courses are discussed on pages 31 of this catalog.

Effective with fall 1970, the University has changed undergraduate degree requirements from 120 semester hours to 32 courses.

Graduate degree requirements, however, remain on a semester hour basis. Course credit, accordingly, varies. In general, the following principle applies:

Undergraduate courses are valued on a "course unit" basis; the course unit being indicated in parentheses following the course number and title, e.g. "1.100 Honors English (COURSE)". Course unit value can be in the following amounts: quarter-course, half-course, three-quarter course, full-course, etc., at quarter gradations through quadruple course.

Graduate courses continue to be valued in the traditional semester hour method. For undergraduates permitted to take graduate level courses, the general principle followed is to allow one "course unit" for a three semester hour course. Where variations from this principle occur, explicit indication is given.

Prerequisites

Many courses call for a previous minimum background of knowledge, as indicated by courses cited in individual descriptions as *prerequisites*. Titles are those of The American University courses; equivalent courses satisfactorily completed at other accredited institutions also meet prerequisite requirements for transfer credit.

Administrative officers may sometimes waive prerequisites on the basis of experience and professional achievement. Where done, the student should secure the syllabus of the prerequisite course and complete the readings on his own. This will minimize the problem of gaps and out-of-date information.

Prerequisites mean the instructor will not use class time to go back and teach the material of the preliminary courses. Students are held responsible for entering the class already possessing the competence called for. *Thus, prerequisites warn students of the knowledge they are to bring with them in order to meet the expected standards of performance. Failure to possess this background can endanger the student's good standing and his ability to continue in the school. Therefore, students may be required to drop the course in question and register for the prerequisite course or courses instead.*

Day classes, except those on Saturdays, ordinarily meet two days a week for 75 minutes a meeting. Saturday morning classes

meet once a week for two hours and twenty minutes a meeting.

Evening classes ordinarily meet once a week for two hours and 45 minutes a meeting with a 15-minutes break during the even-

ing; or they may meet twice a week for 75 minutes a meeting.

See also the regulations regarding courses under the individual school or department degree programs.

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American Governmental System—(See Government and Public Administration)

Anthropology

3.201 Introduction to Cultural Anthropology (Course)

Nature of culture and society. Concepts and theories for their understanding in terms of language, social structure, ecology, adaptive change and the role of the individual.

3.202 Biocultural Evolution (Course)

Interrelationships between biological and cultural factors in the origin and development of man. Primate studies. Prehistoric man and his cultures. Contemporary human variability.

3.331 Variation in Man (Course)

Variation in man by race, age, developmental stages, and sex. *Prerequisite:* 3.202. Fall semester.

3.332 Old World Prehistory (Course)

Cultural development of man in Europe, Africa, and Asia from his earliest cultural beginnings through early metal ages. *Prerequisite:* 3.202. Fall semester.

3.333 New World Prehistory (Course)

Prehistory and rise of civilizations in the North and South American continents from the arrival of the Indian to the time of European contact. *Prerequisite:* 3.202. Spring semester.

3.335 Ethnographic Survey (Course)

Introduction to and comparison of culture areas of the world; representative societies studied to examine role of economic, social, political, and religious systems at various levels of complexity. *Prerequisite:* 3.201. Fall semester.

3.336 Social Structure (Course)

Principles of organization of persons into kinship, political, ritual, and other groups. Analysis of rights and duties of persons according to institutional context. Relation of central cultural concepts to varieties of social organization. *Prerequisite:* 3.201.

3.337 Anthropological Linguistics I (Course)

Relationship of anthropological research to language study, European and American traditions. Some field work with native informants. *Prerequisite:* 3.201.

3.338 Anthropological Linguistics II (Course)

Relations among languages as evidence for ethnic groupings. Linguistic evidence in the study of prehistory. Lexicostatistics. Ethnography of communication and speech communities. *Prerequisite:* 3.337.

3.390 Readings in Anthropology

3.430 Religion in Culture (Course)

Theories and concepts relating to religions, religious development and behavior, exclusive of the great world religions. Role of religion in influencing behavior and integrating cultures. *Prerequisite:* 3.201. Alternate fall semesters.

3.431 Culture and Personality (Course)

Study of determinants of personality. Theories of psychological anthropology; psychological development of and cultural stress on individuals in primitive societies. *Prerequisite:* 3.335 or 3.336. Fall semester.

3.432 Culture Change (Course)

Dynamics of culture. Stability, form, growth. Determinants of and barriers to change. Culture contact, acculturation and assimilation. *Prerequisites:* 3.201 and one additional course in cultural anthropology.

3.433 The Anthropology of Art (Course)

Visual and plastic arts and their symbolism and expression in cultures of Africa, Oceania, and the New World. *Prerequisite:* 3.201 or permission of instructor.

3.434 Community Studies (Course)

Anthropological theory and method relating to studies of communities within complex societies. *Prerequisites:* 3.201 and 3.335 or 3.336, or permission. Spring semester.

3.398-399 Junior Honors in Anthropology (Course)

3.490 Independent Project in Anthropology

3.498-499 Senior Honors in Anthropology (Course)

Individualized study for exceptional students. Topics to be arranged with appropriate faculty. Open to juniors and seniors with grade index of at least 2.0 in the major and 2.0 in the cumulative index. Requires approval of department chairman.

Undergraduate students enrolled in .500 level courses will receive one course unit.

3.530 Human Evolution (3)

Primate variation in form and behavior; early man in evolutionary and ecological perspective; fossil evidence; genetic, biological, and cultural factors. *Prerequisite:* 3.331. Alternate spring semesters.

3.531 Archeology: Topics will alternate (3)

Archeological analysis and interpretation. Theory and method applied to archeological data of a particular area and/or period of time. Successive semesters deal with topics such as: Old World: Lower and Middle Paleolithic Ecology, Upper Paleolithic and Mesolithic Ecology. Archeology of South Asia, Archeology of South-West Asia; New World: Archeology of Meso-America, Archeology of the Eastern Woodlands. May be repeated for credit if there is no duplication. *Prerequisite:* 3.332 or 3.333. Where the geographic area is relevant, these courses constitute part of the SIS area programs.

3.536 Language Area Profiles (3)

Analysis of a specific language area in terms of language distribution, structural variation, history and cross-interpretation with ethnological and archeological data. e.g., Amerindian, Malayo-Polynesian, Indo-Hittite groups. May be repeated for credit if there is no duplication. *Prerequisites:* 3.337 and 3.437, or permission of instructor.

3.537 Language in Culture (3)

Relation of language to culture; distribution of languages, cross-cultural consideration of language structure; problems of language and culture change. *Prerequisites:* 3.201 and one linguistics course. Spring semester

3.538 Systemic Analysis: Topics will be rotated (3)

Analysis of ethnographic data in terms of cultural and social systems. Successive semesters on: kinship, descent and marriage, politics and law, economics; symbolism in ritual and religion. May be repeated if there is no duplication. *Prerequisite:* 3.335 or 3.336

3.539 Ethnology: Offerings will alternate (3)

Culture areas analyzed in terms of structure, function and dynamics. Readings in the ethnological, methodological and theoretical literature pertaining to the area. Regularly recurring courses include: the Far East, South Asia Rural Society; South Asia Caste; Southeast Asia, North American Indians; Indians of the Southwest; Middle America; South America, Sub-Saharan Africa, Urbanization in Africa, Europe; and Oceania. May be repeated for credit if there is no duplication. *Prerequisite:* 3.335, 3.336 or permission. Where the geographic area is relevant, these courses constitute part of the SIS area programs.

3.543 Analytical Methods: Topics will alternate (3)

Student practice in laboratory techniques and/or analysis of cultural materials. Stress on actual involvement in research. Methods presented in different semesters include: Quantitative and Qualitative Methods, Osteology, Paleontology, Technology, Ethnohistory, Cultural Dynamics, and Cross-Cultural Analysis. May be repeated for credit if no content duplication is involved. *Prerequisite:* permission.

3.544 Applied Anthropology (3)

Application of principles and methods of cultural anthropology, including results and significance of research, to contemporary inter-cultural relationships, administration of native peoples, technological development, health, urban and poverty problems and community development. *Prerequisite:* permission of instructor. Spring semester

3.545 Theory in Anthropology (3)

History of the discipline, reviewing theory, method and approaches of anthropology in ethnology, archeology, physical anthropology, and linguistics. Outstanding theorists of the field. Open to anthropology students who are seniors or graduate students. *Prerequisite:* at least one course in each of the above fields. Spring semester

3.550 Field Methods: Topic to be announced (3-6)

Intensive training in ethnographic, linguistic, or archeological field methods. Ethnological utilization of subcultural resources of the Washington area, or excavation in the U.S. or abroad. Preparation of proposals, funding, sampling, data gathering and preliminary analysis of materials

3.590 Readings in Anthropology**3.690 Independent Project in Anthropology****NOTE: Permission required for all Seminars****3.700 Seminar: Psychological Anthropology (3)**

Emphasis on advanced topics such as cognitive processes and theory, semantic analysis and ethnopsychology, with emphasis on their significance for stability and change

3.701 Seminar: Cultural Dynamics (3)

Evaluation of existing theories of change, their strengths and inadequacies. Attempted adumbration of new theory with contemporary significance.

3.702 Seminar: Urban Anthropology (3)

Anthropological approach to cultures of the city. Analysis of cultural backgrounds of peoples moving to urban communities. Pathways of groups migrating into different levels of urban society. Subcultures of class and ethnic groups in the urban environment

3.703 Seminar: Anthropology of Development (3)

In cooperation with the Departments of Anthropology in the consortium of Universities to analyze and interpret processes of economic, social and cultural development of newly formed and independent countries. Training of professional anthropologists for research, consultation, or teaching

3.704 Seminar: Social Anthropology (3)

Focused conceptual frame for study of social relations of groups and categories of persons, of institutions and relations among institutions in simple and complex societies. Significance of focus for theory of stability and change.

3.705 Seminar: Processual Interpretation (3)

Consideration of archeology as anthropology. Contributions of archeological data to general anthropological theory, especially cultural process.

3.731 Seminar: Problems in Anthropology (3)

Intensive analysis of selected theoretical and methodological problems in one of four fields of anthropology. May be repeated for credit if no duplication is involved.

3.737 Seminar: Topics in Anthropological Linguistics (3)

A different topic of current importance will be considered each time: e.g., kinship analysis from linguistic evidence; ethno-linguistic profile of Southwestern Puebloan groups; cognitive approach to language study.

3.797 Master's Thesis Seminar (3-6)**3.799 Doctoral Dissertation Seminar (12-24)**

Automatic Data Processing —(See Continuing Education)

Biblical Studies—(See Philosophy and Religion)

Applied Music—(See Music)

Archival Administration— (See History)

Area Studies—(See Inter- national Studies)

Art

STUDIO

5.104 Introduction to Visual Arts (Course)

Develops visual perception and presents philosophical and theoretical background necessary for informed and sensitive understanding of painting, sculpture, architecture. Lectures, discussion groups from visual material.

5.120 Fundamentals of Drawing and Painting (Course)

Basic training in translating perception into the formal language of painting and drawing. Course time is divided between the two disciplines, allowing full coverage of differences in media.

5.130 Oil Painting (Quarter- course)

Basic problems of figure and still life painting. Emphasis on color and design. Primarily for amateurs, students other than art majors. May be repeated for credit.

5.160 Sketch Class (Quarter- course)

Life drawing with emphasis on rapid sketch. May be repeated for credit.

5.320 Creative Painting (Course*)

Fundamentals of painting. Comprehensive consideration of color, composition and drawing from still life and figure and in individually assigned projects. May be repeated for credit, but not in the same semester. *Prerequisite:* 5.120 or equivalent.

5.340 Sculpture (Course*)

Problems and principles of sculpture. Acquaintanceship with tools, techniques, materials for plastic expression. May be repeated for credit but not in the same semester.

5.344 Ceramics (Course)

Understanding of the nature of clay and its potentials and limitations and an awareness of the vitality and spontaneity of form and decoration in making pottery.

5.360 Drawing (Course*)

Structural drawing from the human figure: movement, expression. Range of techniques and mediums. May be repeated for credit.

5.364 Printmaking I (Course)

Exploration of wood cut, serigraphy and various other print techniques as a media of creative expression. *Prerequisite:* 2 courses in drawing.

5.365 Printmaking II (Course)

Exploration of etching and other print techniques. Emphasis on experimentation with combined and new media. *Prerequisite:* 5.364 or permission.

DESIGN

5.348 Design Techniques I (Course)

Showing through design projects a range of drawing media required in design presentation. Each semester is independent in its content. May not be repeated for credit.

5.349 Design Techniques II (Course)

Sequel to 5.348. May not be repeated for credit.

5.350 Design Fundamentals I (Course)

Theory and techniques of design applicable to all problems of visual presentation: layout, display, graphics, etc. Each semester is independent in itself and may be taken at any time. *Prerequisites:* 5.348 and/or 5.349 or concurrent registration.

5.351 Design Fundamentals II (Course)

Sequel to 5.350. *Prerequisites:* 5.350 or 5.348 and/or 5.349 or concurrent registration.

5.352 Lettering and Typography I (Course)

Theory and analysis of letter forms as design and symbol. Study of type faces, arrangement and setting. *Prerequisite:* 5.351 or permission.

5.353 Lettering and Typography II (Course)

Continuation of 5.352; particular application to advertising design. *Prerequisite:* 5.352, or permission.

5.356 Advanced Design I (Course)

Experimentation and practice in design problems relating to visual communication; emphasis on techniques and solutions of professional problems. *Prerequisite:* 12 credit hours of design, including 5.350-1 and 5.348-9 or permission.

5.357 Advanced Design II (Course)

Practical consideration and execution of complex design problems involving previous design training. Continuation of 5.356. *Prerequisite:* 5.356 or permission.

5.368 Interior Design I (Course)

Basic principles, materials and methods used in the vertical and horizontal designing of simple interior spaces. Lecture and laboratory. *Prerequisite:* 5.348 or 5.349 or concurrent registration.

5.369 Interior Design II (Course)

Correlation of materials and furnishings with functional requirements of multiple interior spaces. Lecture and laboratory. *Prerequisite:* 5.368.

5.378 Problems of Traditional Interiors (Course)

Intensive investigation of aesthetic solutions to the designing of period interiors. Lectures and laboratory. *Prerequisites:* 7.102 and 7.103.

5.379 Problems in Modern Interiors (Course)

Intensive investigation of aesthetic solutions to the designing of modern interiors. Lectures and laboratory. *Prerequisites:* 7.102 and 7.103.

* During eight-week summer session, 5.320, 5.340, 5.360 are half-courses.

5.388 Techniques of Interior Design (Course)

Theory and practice of interior designs including the design, specification and fabrication of furnishings and equipment for interiors. Lectures and projects. *Prerequisite:* 5.369.

5.389 Senior Problems in Interior Design (Course)

Analysis, organization and solution of complex design problems in definitive and professional presentations. Laboratory. *Prerequisite:* 12 hours of interior design including 5.369 and 5.388.

ART EDUCATION**5.370 Crafts for Art Teachers (Course)**

Exploration of various 2-dimensional and 3-dimensional crafts appropriate to teaching art at secondary level through studio practice. Art majors only. *Prerequisite:* juniors or seniors with 4 studio courses.

5.371 Method of Teaching Art in Secondary Schools (Course)

Theoretical and practical considerations of teaching art at secondary level through lecture, discussion and observation. Meets for 6 weeks prior to 9 weeks of student teaching. Must be taken in senior year in conjunction with 21.445 Student Teaching: Secondary Schools (9). Art majors only. *Prerequisites:* 5.370 and admission to 21.445.

5.380 Teaching Art in Elementary Schools (Course)

Methods and techniques of teaching art as part of regular elementary school instruction. Limited to education majors in elementary school program or permission.

5.390 Readings in Art**5.490 Independent Project in Art****5.590 Readings in Art****5.690 Independent Project in Art****ART HISTORY****7.100 Survey of Art I: Ancient and Medieval (Course)**

Illustrated historical introduction to architecture, sculpture and painting with art presented as an objectification and record of man's major beliefs and ideas. Field trips.

7.101 Survey of Art II: Renaissance and Modern (Course)

Illustrated historical introduction to architecture, sculpture and painting in Western world between 1500 and 1950. Field trips. *Prerequisite:* 7.100 or equivalent.

7.102 Survey of the Decorative Arts I (Course)

Illustrated historical introduction to decorative arts, furniture, and interior architecture, Greece through the 17th century.

7.103 Survey of the Decorative Arts II (Course)

Illustrated historical introduction to decorative arts, furniture, and interior architecture, from the 18th through the 20th centuries. *Prerequisite:* 7.102.

7.105 Introduction to the History of Art (Course)

Artistic expression, styles, and purposes from ancient times to the present, as shown by comparative study of a limited number of artists and works of art. *Open only to juniors and seniors who have not had an art course.*

7.301 Greek Art (Course)

Greek art and architecture from the Archaic period through the Hellenistic.

7.302 Roman Art (Course)

The art and architecture of Rome from the Republic through the Empire. *Prerequisite:* 7.100 or 7.301

7.306 20th Century Art (Course)

Painting, sculpture and architecture since 1900 in Europe and the United States. Investigates aesthetic theories common to contemporary art movements.

7.308 Oriental Art: Chinese (Course)

Main currents and monuments of Chinese art from earliest (c. 2500 B.C.) to 1800 A.D.

7.309 Oriental Art: Japanese (Course)

Main currents and monuments of Japanese art from prehistoric to modern times

7.310 African Art (Course)

Familiarizes the student with the heritage of the sub-Saharan Africa. Emphasis on advanced civilizations of the upper Nile, Ethiopia, and Nigeria.

7.390 Readings in Art History**7.400 Seminar for Art History Majors (Course)**

Required for art history majors. Introduction to art history through reading, discussion, and written work based on a selected number of topics. Major aspects such as formal analysis, style, iconography, and quality considered. Attention given to critical interpretation and writing research paper in art history. *Prerequisite:* 4 courses in art history.

7.490 Independent Project in Art History

Undergraduate students enrolled in 500 level courses will receive one course unit.

STUDIO**5.520 Techniques of Etching I (3)**

Engraving, etching and aquatint, designed to give advanced student thorough knowledge of traditional and modern methods in intaglio printing. May be repeated once for credit, but not in the same semester. *Prerequisite:* Printmaking (5.364-5) or 4 drawing courses.

5.521 Techniques of Etching II (3)

Continuation of 5.520. May be repeated once for credit. *Prerequisite:* 5.520.

5.533 Materials and Techniques of Painting (3)

Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, underpainting, glazing, emulsions for tempera, etc. *Prerequisite:* 4 painting courses.

5.560 Drawing (3)

Experiments in the creative and expressive quality of drawing. Personal creative expression. *Prerequisite:* 4 undergraduate drawing courses.

5.700 Criticism of Painting (3)

Theoretical and philosophical consideration of painting. Detailed analysis of artistic works. Lecture and slides. *Prerequisite:* admission to graduate program in Fine Arts or permission.

5.792 Art Laboratory—Painting (3)

Intensive investigation of ideas and techniques in painting. Emphasis on experimentation, leading to development of individual style. *Prerequisite:* 24 credit hours of painting or graduate standing.

5.793 Art Laboratory—Sculpture (3)

Intensive investigation of sculpture with emphasis on experimentation leading to individual style. *Prerequisite:* 24 credit hours of sculpture or graduate standing.

5.794 Directed Project in Fine Arts (3)

Open only to M.F.A. candidates who have completed 6 credit hours of 5.792 or 5.793 (Art Laboratory). Student arranges independent study in painting or sculpture (etching may be specially arranged for students doing thesis in etching) under individual faculty with approval of faculty member and department chairman. Qualitative grade will be given. May not be repeated for credit.

5.797 Master's Thesis Seminar (3-6)

M.F.A. candidate with permission of chairman.

ART HISTORY

Undergraduate students enrolled in .500 level courses will receive one course unit.

7.501 Baroque Painting (3)

17th century painting in Italy, Spain, France, the Netherlands, and England. Emphasis on Caravaggio, Rubens, Rembrandt, Vermeer, Poussin, and Velasquez. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.502 Mediterranean Medieval Art (3)

Early Christian in Italy; Byzantine in the Near East, Romanesque in Italy. *Prerequisite:* 2 undergraduate art history courses including 7.100 or equivalent.

7.503 North European Medieval Art (3)

Art from early Christian period to 1400 (manuscript illuminations, French cathedrals, sculpture, stained glass). *Prerequisite:* 2 undergraduate art history courses including 7.100 or equivalent.

7.504 Gothic Art (3)

Architecture, painting, sculpture, manuscript illuminations and stained glass from 12th to 15th centuries in Europe. *Prerequisite:* 2 art history courses including 7.100 or equivalent.

7.506 Renaissance Sculpture (3)

Italian sculpture from 1400 to 1700 with stress on achievements of Donatello, Michelangelo, Bernini. *Prerequisite:* 2 art history courses including 7.101 or permission of instructor.

7.507 Modern Sculpture (3)

Changes in sculpture from 1700 to present with stress on innovations of Rodin, Brancusi, Moore and American abstractionists. *Prerequisite:* 2 art history courses including 7.101 or permission of instructor.

7.508 Painting: Rococo through Impressionism (3)

Painting in 18th and 19th century Europe; styles of Rococo, Neo-Classicism, Romanticism, Realism, and Impressionism; emphasis upon Watteau, David, Delacroix, Goya, and Monet. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.509 Modern Painting (3)

Painting in Europe and America from Post-Impressionism through contemporary painters, dealing with cubism, fauvism, surrealism, and abstract expressionism. Concentration upon major artists, e.g., Cezanne, Van Gogh, Gauguin, Picasso, and Matisse. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.510 Northern Renaissance Painting (3)

Painting in France, Germany and the Netherlands from the late 14th through the 16th centuries. Emphasis upon major artists such as Jan van Eyck, Durer, Holbein, Bruegel. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.511 Art in the United States: Architecture (3)

Architecture in the United States: 17th century to present. European antecedents and as independent style. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.512 Art in the United States: Painting (3)

Painting in the United States: 17th century to present; European antecedents and as independent style. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.513 Early Renaissance Painting (3)

Developments in the various artistic centers examined in respect to the formulation and solution of Renaissance pictorial problems from 1300-1475. *Prerequisite:* 2 courses in art history including 7.101.

7.514 16th Century Italian Renaissance Painting (3)

Development of High Renaissance, Mannerist and proto-Baroque styles; major artistic personalities: 1475-1580. *Prerequisite:* 2 courses in art history including 7.101.

7.515 Graphic Art (3)

Unique qualities of graphic art (drawings and prints), Renaissance to present. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.516 Fifteenth and Sixteenth Century Architecture (3)

Renaissance and Mannerist periods in European architecture. Emergence of classicism from the Gothic past. Covers architecture and city planning and attempts to explain new forms in terms of political and social developments. *Prerequisite:* 2 courses in art history including 7.100 or 7.101.

7.517 Seventeenth and Eighteenth Century Architecture (3)

Architecture and city planning from the Baroque to the French Revolution. Seeks to correlate changing forms and political, social events. *Prerequisite:* 2 courses in art history including 7.101.

7.518 Nineteenth and Twentieth Century Architecture (3)

Modern period architecture; encounter of architecture with machine age. *Prerequisite:* 2 courses in art history including 7.101.

7.520 Seminar in Art History (3)

Reports and critical discussion of research papers on topic announced for semester. May be repeated for credit. *Prerequisite:* 6 art history courses and permission.

7.590 Readings in Art History
7.690 Independent Project in Art History
7.792 Research Seminar in Art History (3)

Seminars limited to one of five areas. Specific topics announced each semester. May be repeated for credit but only in a different period.

- I. Renaissance art
- II. 17th and 18th century art
- III. 19th century art
- IV. 20th century art
- V. American art

Prerequisites: Open only to MA candidates with 12 credit hours of graduate art history with a B average. Permission of department chairman required.

7.793 Directed Research in Art History (3)

Topic arranged. Must be in fields listed under 7.792 but not in field covered in 7.792 that semester. May not be repeated for credit. *Prerequisites:* Open only to M.A. candidates with 12 credit hours of graduate art history with a B average. Permission of department chairman required.

Automatic Data Processing
—(See Continuing Education)

Biology

9.100 Human Biology (Course)

Current topics in biology: population dynamics, human ecological factors, genetics and evolution, transplantation biology, biological effects of human environmental pollution and human nutrition. One semester. Discussion section required. Biology majors must take 9.350 concurrently.

9.110 Environmental Biology (Course)

Investigation of internal and external environmental factors as they relate to development, adaptation and evolution of plants and animals. Concepts of molecular, cellular, and organismic biotic organization. Two hours of lecture, three hours of laboratory.

9.304 Comparative Plant Anatomy (Course)

Morphological and evolutionary account of plant taxa anatomy. Two hours of lecture, three hours of laboratory. *Prerequisite:* 9.110.

9.305 Comparative Vertebrate Anatomy (Course)

Morphological comparisons of selected chordates and their organ systems in evolutionary sequence. Two hours of lecture, three hours of laboratory. *Prerequisite:* 9.110.

9.321 Plant Physiology (Course)

Survey of plant physiological activity. Two hours of lecture, four hours of laboratory. *Prerequisite:* 9.332.

9.330-9.331 Human Anatomy and Physiology I and II (Course, Course)

Two semester course. Morphologic and functional studies of mammalian systems with special reference to man directed toward understanding of the relationship between normal and abnormal function and homeostasis. Laboratory assignments demonstrate physiologic principles. Two

hours of lecture, four hours of laboratory. *Prerequisites:* 9.110, at least one semester of chemistry, and permission of department chairman.

9.332 Cell Biology (Course)

Integrated study of cell structure and function in microorganisms, plants, and animals emphasizing their ultrastructure, biochemistry, and physiology. Two hours of lecture, three hours of laboratory. *Prerequisites:* 9.110 and one semester of organic chemistry.

9.335 Vertebrate Physiology (Course)

Properties and physiological processes common to all vertebrates, based on a functional study of vertebrate organ systems. Two hours of lecture, three hours of laboratory. *Prerequisite:* 9.332.

9.340 Microbiology (Course)

Microorganisms and their relation to human welfare. Primary emphasis on bacteria. Two hours of lecture, four hours of laboratory. *Prerequisite:* One year organic chemistry or permission of department chairman.

9.350 Independent Biological Studies (Half-course)

Introduction to research. Must be taken at least twice by students majoring in biology. *Prerequisite:* Consult department.

9.356 Genetics (Course)

Principles of heredity and variation in plants and animals. Implications of Mendelian inheritance and modern genetic concepts. Two hours of lecture, three hours of laboratory. (Laboratory optional for non-biology majors) *Prerequisite:* 9.110.

9.357 Genetics Laboratory (Quarter-course)

9.358 Developmental Biology (Course)

Developmental processes including formation of gametes, cleavage, differentiation and morphogenesis in selected organisms. Two hours of lecture, three hours of laboratory.

9.360 Clinical Laboratory Science (Quadruple course)

Six-month apprentice experience in laboratory of a hospital affiliated with the University in its medical technology program. *Prerequisite:* senior in medical technology. May be taken twice for credit. Hours arranged.

9.390 Readings in Biology

9.490 Independent Project in Biology

Undergraduates enrolled in .500 level courses will receive one course unit.

9.523 Bio-Ecology (4)

Aquatic and terrestrial ecology; principles stressed through extensive field work; limnological phase with emphasis on water pollution, terrestrial phase with emphasis on synecology in various ecosystems. *Prerequisite:* senior or graduate status in biology.

9.524 Plant Taxonomy (4)

Study of vascular plants from phylogenetic taxonomic viewpoint. Laboratory includes preparation of herbarium specimens, techniques in preserving plants and practice in use of taxonomic keys. *Prerequisite:* senior or graduate status in biology.

9.531 Animal Histology (4)

Structures and properties of cells. Microscopic study of tissues and organs of representative mammals, including man. Two hours of lecture, four hours of laboratory. *Prerequisite:* senior or graduate in biology.

9.532 Parasitology (4)

Emphasis on physiological relationship between parasite and host, clinical methods: control and prophylaxis. Guest lectures, laboratories and field inspections. *Prerequisite*: senior or graduate in biology

9.533 Biological Designs (4)

Use of instrumentation in measuring and interpreting physiological phenomena. Two hours of lecture, four hours of laboratory. *Prerequisite*: permission of instructor

9.535 Endocrinology (3)

Structure and function of endocrine glands with emphasis on their control of mammalian functional processes. Three hours of lecture, discussion and demonstrations. *Prerequisite*: Advanced standing in biology and organic chemistry

9.536 Endocrinology Laboratory (1)**9.537 Invertebrate Biology (4)**

Comparative study of aquatic invertebrates which correlates morphology and physiology in relation to the aquatic environment and evolutionary development of taxa. Two hours of lecture, four hours of laboratory. Field trips. *Prerequisite*: senior or graduate in biology

9.541 Immunology (4)

Basic immunological principles. Emphasis on the role of microorganisms in immunological mechanisms. Laboratory techniques concerned with diagnostic serological reactions. Two hours of lecture, four hours of laboratory. *Prerequisites*: 9.341, one year of organic chemistry, and senior or graduate biology

9.543 Virology (4)

Nature and properties of plant, animal, and bacterial viruses. Laboratory techniques for cultivation and manipulation of viruses. Two hours of lecture, four hours of laboratory. *Prerequisites*: 9.340, one year of organic chemistry, and senior or graduate in biology

9.570 General Entomology (4)

Morphology, life history, classification, and economic importance of insects. Two hours of lecture, four hours of laboratory. *Prerequisite*: senior or graduate in biology

9.580 Microbial Ecology (4)

Insight into role of microorganisms at the interface of human society and the physical-chemical world. Ecology of microorganisms in soil, food, lakes and oceans. *Prerequisites*: Advanced standing in biology and 9.340

9.581 Protozoology (4)

Free-living and parasitic protozoa; their structure, function, and ecology; special taxonomic, culturing, cytological, illustrative, and photomicroscopic techniques. *Prerequisites*: Advanced standing in biology and permission of instructor.

9.590 Readings in Biology**9.690 Independent Project in Biology****9.700 Graduate Seminar (1)**

Selected topics, may be repeated once.

9.721 Advanced Plant Physiology (4)

Biochemical mechanisms in plants including carbohydrate, lipid and protein metabolism, enzyme kinetics and chemistry of plant pigments. Lecture only. Laboratory optional, number of credit hours arranged with instructor. *Prerequisites*: 9.321, one year of organic chemistry, and graduate standing in biology

9.730 Advanced Cell Physiology (4)

Emphasizes the functions of cellular components: chromosomes, mitochondria, membranes, nuclear, cytoplasmic interactions, and chloroplasts. *Prerequisites*: 9.332 and graduate status in biology.

9.733 Radiation Biology (4)

Biological aspects of ionizing radiation in relation to the whole organism, to organ systems, cellular and subcellular structures through laboratory experiments. *Prerequisite*: graduate status in biology

9.751 Advanced Genetics (4)

Molecular genetics, variation and chromosomal irregularities. Statistical treatment of genetic phenomena through laboratory projects. Two hours of lecture, three hours of laboratory. *Prerequisites*: Graduate in biology, 69.202, 9.356.

9.752 Bacterial Genetics (4)

Genetic principles applicable to bacteria and viruses. Mutation, recombination, transformation, conversion, transduction, bacteriophage, molecular genetics. Two hours of lecture, four hours of laboratory. *Prerequisites*: 9.340, 9.356, and graduate in biology.

9.754 Immunogenetics (3)

Genetic control of immunologic reactions as applied to blood groups and tissue transplants. Two hours of lecture. Laboratory optional. *Prerequisites*: 9.356 and graduate in biology.

9.755 Immunogenetics Laboratory (1)

Techniques of animal care and surgery. Methods of transplantation of normal and neoplastic tissues. Each student conducts a research project chosen from an area of transplantation biology. May be taken concurrently with 9.754

9.761 Experimental Embryology (4)

Biochemical mechanisms of fertilization, differentiation and growth of vertebrates. Laboratory projects include experimental tests with selected vertebrate embryonic tissue cultures. Two hours of lecture, three hours of laboratory. *Prerequisites*: Graduate in biology, 9.358, 9.730.

9.797 Master's Thesis Research (3-6)**Broadcasting—(See Communication)****Business Administration**

Undergraduate students enrolled in .500 level courses receive one course unit.

Independent Study—In all programs of the school, students may register for independent study courses. General regulations governing these are found on page 31.

Courses available are:

10.390 Readings in Business Administration**10.490 Independent Project in Business Administration****10.590 Readings in Business Administration****10.690 Independent Project in Business Administration****Accounting****10.206 Introduction to Accounting (Course)**

Basic principles and underlying concepts. Assets, equities, fundamentals of income measurement, financial statements. Uses, limitations of financial data. Current reporting practices. Appraisal of accounting.

10.207 Accounting Methods (Course)

Fundamental methods and techniques. Introduction to systems of data accumulation and analysis. Manual and computer practice cases. *Prerequisite:* 10.306.

10.308 Intermediate Accounting (Course)

Nature, valuation of assets and equities, measurement of business income. Generally accepted accounting principles and procedures. Financial reports and analysis. *Prerequisite:* 10.207 or permission.

10.309 Advanced Accounting (Course)

Consolidated financial statements. Partnership accounting, business reorganizations and business combinations. Estates, trusts, and other fiduciary accounting.

10.311 Intermediate Accounting I* (Course)

10.312 Intermediate Accounting II* (Course)

Review of fundamentals. Principles of asset and equity valuation, measurement of business income. Prevailing concepts and practices underlying financial statements. Financial reports and disclosure. *Prerequisite:* 10.307 or permission is prerequisite for 10.311. 10.311 is prerequisite for 10.312.

10.315 Advanced Accounting* (Course)

Partnership accounting. Business reorganizations. Business combinations through pooling and purchase. Consolidated financial reporting. Estates, trusts, and other fiduciary accounting. *Prerequisite:* 10.312 or permission.

10.400 Use of Accounting Information (Course)

Fundamentals, with concentration on uses of accounting as a tool of management. *Not open to undergraduate business majors.* Required of candidates for M.B.A. or Ph.D. who do not have adequate background in introductory accounting.

10.410 Accounting: Readings and Problems (Course)

Selected topics in financial accounting focusing on current issues. *Prerequisite:* 10.309 or permission.

10.411 Cost Accounting (Course)

Basic concepts and techniques. Responsibility accounting and performance measurement. Standard costs and flexible budgets as a management tool. Cost analysis for management planning and control, special decisions. *Prerequisite:* 10.307 or 10.400.

10.421 Auditing (Course)

Audit objectives. Framework of auditing standards. Basic auditing procedures, techniques. Nature and function of audit working papers. Tests and sampling in the auditing process. *Prerequisite:* 10.312 or permission.

10.431 Fundamentals of Income Tax (Course)

Introduction to federal taxation relating to corporations, individuals and partnerships. Practice preparation of tax returns. Tax planning. *Prerequisite:* 10.307 or permission.

10.512 Advanced Cost Accounting (3)

Special topics. Advanced work in technical problems of manufacturing costs. Current cost analysis, planning, control. Cost data and statistical applications. *Prerequisite:* 10.411.

10.532 Advanced Income Taxes (3)

Advanced aspects of particular interests to accountants, lawyers. Special problems of federal income taxes, including estates, trusts, corporate and partnership liquidations, distributions, reorganizations, special transactions. Federal gift, estate taxes. *Prerequisite:* 10.431 or permission.

31.008 Tax Planning in Real Estate (No Credit)

See Institutes

10.534 Systems Design and Installation (3)

Techniques of analyzing, designing accounting systems for effective managerial control. Adapting accounting procedures to organizations of various types and sizes. Demonstration of important machine methods. *Prerequisite:* 10.411.

10.539 Controllershship in Business (3)

Controller's functions. Emphasis on interpretation of accounting aspects of managerial problems, reporting. Role as staff member of management team. *Prerequisites:* 10.312, 10.411.

10.610 Contemporary Accounting Problems (3)

Nature of accounting principles and postulates. Consideration of major problems of income measurement and related problems of assets and equity valuation. *Prerequisite:* permission.

10.711 Seminar in Accounting Theory (3)

Development of accounting theory. Analysis of current accounting problems. Review of current literature. Required of M.B.A. and Ph.D. candidates taking Accounting Comprehensive Examination. *Prerequisite:* permission.

Advertising

11.411 Principles of Advertising (Course)

See Marketing.

11.512 Advertising Copy (3)

How to write advertisements which increase sales. Distinctive problems of various types of copy analyzed, methods of copy testing evaluated. *Prerequisite:* 11.411.

11.513 Advertising Layout and Production (3)

Arrangement of headlines, copy, illustrations to achieve balance, gaze motion, distinctiveness, legibility. Type, paper, production processes. Practice in visualizing, laying out, scheduling, producing. *Prerequisite:* 11.512 or permission.

Automatic Data Processing —(See Technology of Management under Continuing Education.)

* 10.311, 10.312, 10.315 not offered after 1970-71.

Business and Economics—
(See page 202)

Business-Government
Relations

10.500 Private Enterprise and
Public Policy (formerly
Business-Government
Relations) (3)

How government sets framework for the economy and conduct of business. What management should know of government control, regulation, promotion of business. Areas of cooperation and conflict. Development of and trends in business-government relations.

10.501 Legal Foundations of
Business-Government
Relations (3)

Focuses on legal powers, procedures of selected administrative agencies and of the legislative process; legal implications for business of public policy decisions, relation of corporate legal departments to business-government relations. *Prerequisite:* 10.500 or permission.

10.700 The Business Administrator
and Government Policy (3)

Case problem seminars. Working relations between business administrators and government (local, state, federal). Guest business, government leaders participate. *Prerequisite:* 10.500 or permission.

10.701 Seminar in Corporate Public
Affairs (3)

Role of corporate public affairs department in advising management of political trends and issues affecting the firm, industry, private enterprise, general political and social structure. *Prerequisite:* 10.500.

10.703 Seminar in Business Law (3)
See Business Law.

10.705 Seminar in Business-
Government Relations (3)

Philosophy of business-government relations; emphasis on research and in depth analysis of issues and concepts. *Prerequisite:* 10.500 or permission.

11.504 Government and Marketing
(3)

See Marketing.

Business Law

10.201 Business Law I (Course)

Legal concepts and functions. Federal, state court systems. Legal phraseology; elementary legal bibliography. Elements of law of contracts, sales, and agency useful to business executives.

10.302 Business Law II (Course)

Functions, form, content of commercial paper. Elementary law of partnership, coporation, trusts, insurance, real and personal property. *Prerequisite:* 10.201

10.401 Legal Environment of
Business (Course)

Development of law; contracts; negotiable instruments; types of organizations; real, personal property. *Prerequisite for graduate business students who did not previously study business law or pass waiver examinations. Not open to undergraduates.*

10.703 Seminar in Legal Aspects of
Business Problems (3)

Business problems arising from recent legal developments, particularly in connection with Uniform Commercial Code. *Prerequisite:* 2 basic law courses and permission

31.009 Institute on Termination of
Government Contracts (no
credit)

31.013 Institute on Problems of
Fiduciary Obligations and
Conflicts of Interest in the
Modern Corporation (no
credit)

See Institutes, page 234

Business Management

10.456 The Process of Management
(Course)

Theories of management. Managerial functions: planning, organizing, coordinating, motivating, controlling. Budgeting. Decision-making, communication; human relations.

10.458 Business Policy (Course)

Integration of principles and concepts previously studied in individual courses. Analysis, definition, proposed resolution of business problems from managerial viewpoint. Case problem method, seminar approach. *Prerequisite:* senior standing.

10.557 Administrative
Communication (3)

Fundamentals of (1) organizational communication, including organizing of channels, systems, patterns, and (2) interpersonal communication, as developed by general semantics and the behavioral sciences.

10.558 Ethics in Management (3)

Ethical problems confronting administrators. Criteria, approaches to developing values, philosophy, ethical principles. Role of religious and spiritual factors. Applications to current organizational, administrative situations through case problems. *Open only to seniors, graduate students.*

10.656 Design of Organizations (3)

Resources necessary to achieve organizational objectives. Analysis from viewpoint of authority, response, communication systems, compensation, technology, management patterns. Heavy emphasis on behavioral sciences contribution. *Prerequisite:* Satisfactory completion of all M.B.A. first year courses or equivalents.

10.756 Seminar in Policy
Formulation and
Administration I (3)

Executive skills through seminar approach, case problem method. Emphasis on competence in effective analysis of organizational problems, formulation of appropriate managerial policies. *Required of M.B.A. and Ph.D. candidates. Prerequisites:* At least "B" average in previous, graduate studies, 10.456, and, for part-time M.B.A.'s, advancement to candidacy.

10.757 Seminar in Policy
Formulation and
Administration II (3)

Continuation of 10.756. Development, through seminar approach and case problem method, of executive skills. *Required of M.B.A. and Ph.D. candidates. Prerequisites:* 10.756 and at least "B" average in previous graduate studies.

10.758 Seminar in Human Relations I (3)

Development, through seminar approach and case problem method, of capacity to work effectively with superiors, equals, subordinates. Importance of human relations in successful business operations. *Required of M.B.A. and Ph.D. candidates* *Prerequisites:* 10.456, 10.491 desirable background

10.759 Seminar in Human Relations II (3)

Research and investigation of behavioral interactions in the work situation, analysis and study of research advances; research project required. Primarily for Ph.D. candidates, superior M.B.A. candidates may elect with approval of director of program. *Prerequisite:* 10.758.

10.760 Doctoral Seminar in Management Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts of management, human relations, other basic areas. Group analysis, seminar discussion, individual research projects. *Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.*

10.761 Seminar in Philosophy of Management (3)

Fundamental concepts of management: analysis of interrelations, relation to administrative process. Development of organizational, individual philosophy. *Required of Ph.D. candidates.* *Prerequisites:* 10.756, 10.757, 10.758.

10.762 Seminar in Corporate Planning (3)

Nature, structure of planning. Development coordination of financial, manpower, marketing, technical planning. Profitability planning. Short-term, long-term planning. Planning and forecasting. *Prerequisites:* 10.656, 10.657, 10.757.

Church Management

Students of Wesley Theological Seminary and of Howard University School of Religion may take Church Management courses for which they are qualified and which are appropriate to their degree programs, without additional cost, subject to approval of the student's faculty adviser and the Director, Center for Church Management.

12.545 Church Program Development (3)

Basic management concepts; application in designing action programs to accomplish avowed purposes, objectives, goals. Fact-finding, problem identification, forecasting, policy-making, planning.

12.546 Managing Church Financial Resources (3)

Systematic approaches to obtaining, protecting, and using monetary resources for churches and related organizations. Stewardship applied through budgeting, fund raising, purchasing, accounting. *Prerequisite:* 10.306, or permission.

12.547 Church Family Financial Planning (3)

Assistance to religious leaders in planning their own family financial affairs and in helping them qualify to teach groups, counsel individuals with problems of family finance. *Prerequisite:* 10.467, or permission.

12.548 Church Property Management (3)

Acquiring, using, maintaining, protecting real estate, equipment for religious purposes. Legal considerations, tax obligations. For pastors, property managers, others responsible for administering physical facilities.

12.549 Church Office Services (3)

Functional approach to office planning and staffing, housing and equipping, communicating and scheduling, recording and reporting. Case problems to develop, integrate administrative skills.

12.550 Personnel Relations for Religious Organizations (3)

Responsible stewardship of human resources. Determining and describing staff positions; enlisting, assigning, and training staff personnel, both volunteers and employees; developing and maintaining staff morale.

12.551 Church Management: Selected Topics (2)

Observations, field studies, conferences, shared experiences to explore significant subject areas not covered adequately in other courses. Varying themes announced each session. May be repeated if different topics are covered. Topics selected from: accounting methods, basic concepts, effective communication, estate planning, food services, group procedures, information systems, insurance programs, legal environment, program budgeting, public relations, systematic purchasing, tax problems.

12.552 Church Management Internship (3)

Correlation of faculty-supervised work experience and seminar sessions, to apply previous studies, develop comprehensive philosophy. Practical research, evaluation, reports. *Prerequisite:* Six credits in church management or permission.

12.553 Church Management Internship I (3)

Scheduled field-work assignments and seminar sessions, primarily for students preparing for religious career service as professional directors and ministers of management. An applied research project is completed and reported as if for publication. *Prerequisites:* 12.552 or permission.

12.554 Church Program Promotion (3)

Management strategy that churches and related organizations may use effectively in seeking acceptance of and identification with their purposes, objectives, goals, accomplishments, potentialities, needs.

12.746 Seminar in Religious Organization Management (3)

Individual research on a selected category of related organizations, with varying selections each session. Categories available: religious congregations and judicatories; church-related camps and assembly centers, denominational junior colleges; church-related community service agencies. May be repeated for credit if different category is covered.

For those who cannot participate in the foregoing courses on a full semester basis, the Center for Church Management offers a series of non-credit institutes the subject matter of which is substantially equivalent to that of 12.545, 12.546, 12.547, 12.548, 12.549, 12.550, and 12.553. For further details, see *Institutes*, page 234.

For graduate courses related to church management, see catalogs of Wesley Theological Seminary or of Howard University School of Religion.

12.799 Doctoral Dissertation Seminar (3)

BASIC COURSES

10.465 Business Finance I (Course)

How businesses acquire and manage short-term funds. Nature, use of financial instruments. Lending institutions. Money markets. Introduction to financial management. Government assistance to small business. *Prerequisites* 10.307 or 10.400 and 19.101 or 10.442.

10.466 Business Finance II (Course)

Acquisition, management of long-term funds by business firms. Investment institutions as sources of funds. The capital markets. Business long-term financial problems. Government regulations. *Prerequisites* 10.307 or 10.400 and 19.101 or 10.442, 10.465 recommended.

10.467 Personal Finance (Course)

Attaining personal investment goals by effective money management. Increasing value of income, budgeting, efficient saving, low cost borrowing. Providing for retirement, old age, sickness. Introduction to investments, insurance, taxes.

10.565 Financial Statement* Analysis (3)

Appraisal of prevailing techniques of statement analysis. Significance of "generally accepted accounting principles". Development of meaningful analytic methods from viewpoint of financial management. *Prerequisites*: 10.465, 10.466.

COMMERCIAL BANKING

Candidates for B.S. in Business Administration may receive credit for studies satisfactorily completed at the American Institute of Banking. For evaluation, submit AIB transcript to Director, Finance Program.

10.571 Commercial Banking Policies (3)

Factors determining management policies, services offered by individual banks. Internal: capital resources, market development, profitability of functions, relations to other banks. External: government regulation, economic conditions. For present and prospective bank officers. *Prerequisite*: 19.306 or permission.

10.567 Funds Management (3)

See below.

10.771 Seminar in Commercial Bank Management (3)

Current managerial problems from viewpoint of chief executive officers. Effects of changing economic, competitive, political, regulatory policies, proposals, actions. *Prerequisite*: 10.571 or permission.

FINANCIAL MANAGEMENT

10.566 Financial Management (3)

Case problem analysis to develop skills in diagnosis and solution of a wide range of financial problems and in financial decision-making. Interrelations of financial, functional, general management. *Prerequisites*: 10.465 and either 10.466 or permission.

10.567 Funds Management (3)

Financial managers use of money market for acquisition of short-term financial requirements, short-term investment of retained earnings and seasonal excess funds. Money market institutions, instruments from viewpoint of users. *Prerequisites* 10.465, 10.466.

10.765 Seminar in Financial Management (3)

Examination in depth of current issues, newly developed tools. Review of literature to cover total area of business finance. Required of students electing financial management comprehensive examination. *Prerequisites* 10.566, 10.567.

10.766 Seminar in International Financial Management (3)

Practices, problems of international investors, multinational corporation. Securing, transferring funds. Governmental policies, regulations. Protective devices. Foreign exchange problems. *Prerequisites* 10.566, 10.642, 11.526 or permission of instructor.

10.539 Controllership in Business (3)

See Accounting.

INVESTMENT ANALYSIS**

10.569 Investment Analysis (3)

Selecting securities. Timing. Dow theory, dollar averaging, formula planning. Market fluctuations: measurement, analysis. Information sources. *Prerequisite*: Basic understanding of securities from experience or from 10.466 or 10.467.

10.570 Advanced Investment** Analysis (3)

Securities analysis. Investment approaches, theories. Portfolio construction, management. Current trends. Practical techniques for successful investment. New types of investment. *Prerequisite* 10.569.

10.769 Seminar in Investments** (3)

Current problems and trends indicated in academic and popular literature. Selected case problems. Required of students electing investment analysis comprehensive examination. *Prerequisite* 10.570.

Students may secure experience in portfolio management by being accepted to membership on the Investment Committee of S.A.M. The committee administers the "Nathan A. Bailly Investment Training Fund" which was contributed to S.A.M. in honor of former Dean Bailly and in order to provide experience to supplement courses in investments.

Industrial Relations, Personnel and Manpower Management

10.491 Principles of Employee Relations (Course) (Formerly Personnel & Manpower Mgmt.)

Philosophy, operation of employee relations system in United States, principal economic, social, managerial factors involved in its operation in terms of management of personnel and labor-management relations.

** 10.565, 10.569, 10.570, 10.769 provide excellent background for *Chartered Financial Analyst Examination*.

10.493 Personnel Management Operations (Course) (Formerly, 10.591 Manpower Appraisal and Motivation)

Techniques generally utilized (including computer applications) in personnel budgeting, manpower control, recruitment, selection, placement, performance rating, wage and salary administration. *Prerequisite:* 10.491

10.495 Manpower Management Policies (Course)

Intensive examination through case analysis, assigned reading and individual and group research of the policy formulation process in manpower management. *Prerequisite:* All other courses in program major or permission.

10.595 Training and Education in Industry (3)

Designing, administering, evaluating training and educational programs in industry at all levels; analysis of techniques generally employed in industry, current developments, problems, including substantial treatment of training the disadvantaged.

10.596 Industrial Relations: The Legal Environment (3)

Survey of legal environment of the industrial relations system; the collective bargaining process in terms of governmental regulation. *Prerequisite:* 10.491 or permission of instructor.

10.597 Labor Relations Management (3) (Formerly 10.492, Industrial Relations)

Examination, by case studies, selected readings, of management philosophy, strategy, tactics in collective bargaining; management's legal rights, responsibilities; impact of collective bargaining on management function and employee relations. *Prerequisite:* 10.596, or permission.

10.692 Collective Bargaining and the Public Interest (Formerly 10.593, Advanced Industrial Relations) (3)

Examination of classic and current theory of collective bargaining in terms of economic and political impact upon the public interest. *Prerequisite:* 10.596, or permission of instructor.

10.791 Seminar in Personnel and Manpower Management (3)

Individual, group research in current problems, developments in personnel and manpower management. *Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. Prerequisites:* 10.491, 10.591 or permission of instructor

10.792 Seminar in Industrial Relations (3)

Individual, group research in current problems, developments in collective bargaining. *Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. Prerequisites:* 10.596, 10.692 or permission of instructor.

10.793 Doctoral Research Seminar in Manpower Management (3)

Scope covers entire discipline of manpower management in terms of its literature. Oral and written reports of

assigned topics required. *Required of all doctoral students choosing personnel management and industrial relations as comprehensive examination fields. Prerequisite:* permission of instructor

10.795 Seminar in Manpower Management (3)

Use of selected case problems to develop integrated conceptual philosophy of manpower management and role and function of manpower administrator in its application. *Required of all master's and doctoral students electing personnel management and/or industrial relations as comprehensive examination field. Prerequisite:* permission of instructor.

Insurance

11.486 Risk and Insurance (Course)

For non-specialists. Most effective means of protecting individuals and firms against insurable risks. Kinds of risks, analysis of contracts, comparison of costs.

11.586 Life Insurance I (3)

Fundamental principles. Analysis of companies, contracts, costs to policyholders. Premium computation, valuation, apportionment of surplus. State regulations, laws, judicial decisions. *Course preparatory for Part A of the Chartered Life Underwriter's examination.*

11.587 Life Insurance II (3)

Fundamentals applied to estate planning, group insurance. Computing mortality tables, premiums, reserves. History of life insurance; its role in U.S. economic development. *Course preparatory for Part A of the Chartered Life Underwriter's examination.*

11.588 Property Insurance (3)

Insurance coverage of losses due to fire; the fire insurance contract, insurable interest, endorsements. Business interruption; multiple line and all risk coverage. Rates, reserves, reinsurance, loss adjustments. *Background for Chartered Property and Casualty Underwriter examination. Recognized by State of Maryland for insurance license. 11.589 and 11.591 must also be completed satisfactorily for the examination.*

11.589 Casualty Insurance (3)

Hazards underlying and protection provided by workmen's compensation, liability, automobile, aviation, accident and health, theft, boiler, machinery insurance. Rate making, regulations. Prospecting; selling. *Background for Chartered Property and Casualty Underwriter examination. Recognized by State of Maryland for license. 11.588 and 11.591 must also be completed satisfactorily for the examination.*

11.591 Automobile Insurance (3)

Nature of family auto policy; other auto policies. Financial responsibility; functions of auto insurers. *Recognized by State of Maryland for insurance license. 11.588 and 11.589 must also be completed satisfactorily for the examination.*

11.788 Seminar in Casualty and Property Insurance (3)

Integrating seminar. Emphasis on impact of underwriting changes on business operations. Research, analysis of selected topics. *Required of students electing casualty and property insurance comprehensive examination. Prerequisites:* 11.588, 11.589.

INSTITUTES IN INSURANCE

31.075 CPCU Insurance Institute (no credit)

- 31.076 Insurance Claims Adjusters Institute (no credit)**
- 31.077 CLU Insurance Institute (no credit)**
- 31.078 LUTC Insurance Institute (no credit)**
- 31.079 General Insurance Institute (no credit)**

See *Institutes*, page 234.

International Business

11.526 Fundamentals of International Business (3)

Types, patterns of operations. Foreign trade policies. American markets for foreign commodities. Foreign markets for American products. Channels of international marketing. International advertising, sales promotion. *Prerequisite:* 11.300 or permission.

11.527 Export-Import Management (3)

Buying and selling in foreign trade. Export-import shipments. Freight forwarders. International arbitration. Financing, credits, collections. Insurance. Packing Tariff procedures and documents. Air shipments. Communications. *Prerequisite:* 11.526.

11.528 International Marketing Operations (3)

Business, marketing objectives of U.S. firms abroad. Techniques implementing objectives. Market analysis. Marketing intelligence and information sources. Economic, cultural, organizational, government factors affecting overseas marketing operations. *Prerequisite:* 11.526 or permission.

12.563 International Transportation Problems (3)

See *Transportation*

11.529 World Business Conditions: Problems and Opportunities (3)

Subject matter changes each session to concentrate on a different area of the world. Opportunities for local and international firms in specific countries, grouped by language and/or geography. Analysis of purchases, employment, capital formation, cooperation with foreign businesses. Contribution of private enterprise to industrial development. *Prerequisite:* 11.528 or permission.

11.626 The Multi-National Firm (3)

Comparative analysis of firms with foreign subsidiaries. Organizing, controlling, managing subsidiaries; relations with governments, customers. Role in economic development, balance of payments, international relations. *Prerequisite:* 11.526 or permission.

11.726 Seminar in International Business (3)

Growth of native and international businesses throughout the world. Trends, policies, problems. Interaction with national economies, political conditions. *Prerequisite:* 11.626.

10.766 Seminar in International Financial Management (3)

See *Finance*

31.025 Annual Ocean Shipping and Foreign Trade Management Institute (No Credit) See Institutes

See also transportation courses on page 186. *International economics and economic geography courses offered by Economics; international relations courses offered by International Service.*

Managerial Analysis (Business Economics)

10.442 Introduction to Business Economics (Course)

Fundamentals of national economic, fiscal, monetary policy and the process of economic growth. Emphasis on application of economic principles, methods of economic analysis, micro-economic theory. *Required of M.B.A. and Ph.D. students without 6 hours of economics; not open to undergraduates. Prerequisites:* 10.400 and 69.400 or equivalent.

10.542 Foundations of Business Forecasting (3)

Tools needed by executives to evaluate appraisals of economic outlook in decision-making. Business cycles; fluctuations of income and employment; economic and business indicators. *Required of Ph.D. students. Prerequisites:* 10.442 & 10.457

10.642 Managerial Economics (3)

Fundamental theoretical, analytical tools of economics applicable to decision making. Research of empirical and theoretical studies, evaluation of their application to economic analysis in management. *Required of M.B.A. and Ph.D. students. Prerequisites:* 10.442, 10.456, and, for Ph.D. students also 10.542.

10.643 Managerial Analysis (3)

Integration of economic, organizational, motivational, legal, ethical and other managerial aspects in solving national and international business problems. Profits; pricing; capital expansion; planning; control. *Required of Ph.D. candidates and M.B.A. candidates, electing Managerial Analysis as comprehensive field. Prerequisite:* 10.642.

10.742 Seminar in Managerial Analysis (3)

Development of decision-making skills through analytical case studies. Oral and written reports, discussion, research. *Required of Ph.D. students. Prerequisites:* 10.643 and completion of both tools of research.

10.743 Doctoral Seminar in Managerial Analysis Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. *Required of Ph.D. students; open to superior M.B.A. students on permission of instructor. Prerequisite:* 10.643.

Management Information Systems See *Technology and Administration* under *Continuing Education*, page 134.

Marketing

11.300 Marketing I (Course)

Role of marketing in economy. Emphasis on social, economic aspects, implications. Marketing theory, practice in relation to decision-making processes. Relation consumer, government. *Prerequisite:* 19.100.

11.301 Marketing II (Course)

Decision-making in marketing. Case studies in applying principles, techniques. Nature of decision processes, marketing research, buyer motivation, behavior, product planning, channels of distribution; pricing, promotional programs. *Prerequisite* 11.300.

12.462 Fundamentals of Transportation and Logistics (Course) See Transportation.**11.401 Consumer Markets (Course)**

Nature and extent of markets for consumer goods and services. Anticipating and meeting ultimate consumer needs. Relation of consumption to the economy. Consumption trends and measurements. Consumer education. *Prerequisite*: 11.300 or permission.

11.411 Principles of Advertising (Course)

Advertising approach to marketing problems. Advantages, limitations of advertising. Elements of campaigns; budget, product, consumer studies, media selection, copy, layout, production, scheduling, testing. *Prerequisite* 11.300 or advertising experience.

11.436 Retailing Management (Course)

Basic principles, techniques of merchandising, store operation. Planning, organizing, controlling operations. Buying, pricing, promoting. Accounting procedures, expense management. Managerial approach through cases. *Prerequisite*: 11.300 or permission.

11.502 Consumer Marketing Research (3)

Information collection, interpretation, presentation for shaping marketing objectives, policies, planning. Role in more effective marketing of consumer goods and services. Emphasis on individual or group research projects. *Prerequisite*: 69.202 or 69.400, and 11.401 or permission.

11.504 Government and Marketing (3)

Influence of governments on marketing activities. Effects of services, promotion, regulations by federal, other governmental agencies on marketing decisions. *Prerequisite*: 11.301 or permission.

11.505 Industrial and Government Markets (3)

Nature, extent of markets for industrial goods, services. Anticipating and meeting industrial, institutional, government needs. Relationship to the economy. *Prerequisite*: 11.401 or permission.

11.507 Industrial Marketing Research (3)

Application, interpretation. Techniques for measuring, anticipating demand. Special projects. *Prerequisites*: 69.202 or 69.400, and 11.505 or permission.

11.683 Real Estate Market Analysis (3)

See Real Estate and Urban Development Planning

11.508 Consumer Behavior (3)

Processes and facets influencing consumer motivation, behavior. Consumer decision-making processes and their marketing implications. *Prerequisite*: 11.401 or permission.

11.512 Advertising Copy (3)

See Advertising.

11.513 Advertising Layout and Production (3)

See Advertising.

11.528 International Marketing Operations (3)

See International Business.

11.546 Food Merchandising (3)

Buying procedures; market operations; costs; profit margins. Sales planning, pricing, advertising, sales promotion. Relations with suppliers. Having right items at right time.

11.548 Food Store Management (3)

Administration of food stores. Supervision, development of personnel. Expense control. Customer services. Ordering, receiving, storing, displays, marking. Housekeeping, safety. Record keeping, reports.

11.551 Selling and Sales Management (3)

Organization of sales department. Qualification, duties of sales manager. Recruitment, selection, training, compensation, sales campaigns. Selling techniques, cost control. *Prerequisite*: 11.300 or permission.

12.565 Physical Distribution Management (3)

See Transportation.

11.552 Cost Analysis Systems and Techniques in Distribution (3)

Study of costs, techniques of distribution in relation to products, customers, territories to assist management to reduce distribution costs, increase marketing efficiency. *Prerequisite*: 11.502 or 12.565 and permission of instructor.

11.601 Marketing Management (3)

Role, functioning of marketing manager and staff in modern industrial and distributive organizations. Factors affecting decisions. Planning marketing programs; determining product, channel, prices, promotional policies. *Prerequisite*: minimum of 6 graduate credits in marketing or permission.

11.701 Seminar in Marketing (3)

Critical review of marketing theory, literature; analysis of current trends, problems. Individual research. Required of students electing marketing comprehensive examination. *Prerequisite*: 11.601.

Operations Analysis (Management Science)**10.056 Basic Computer Applications (0)**

Introduction to computers, their role in numerical analysis, simulation. Laboratory periods give "Hand-on" experience working with computers. Emphasis on University time-sharing system. For graduate students only.

10.057 Introduction to Quantitative Methods (0)

Fundamentals of quantitative methods necessary for managerial requirements. Incorporates review of basic mathematics. Students with inadequate mathematical background will be assigned to this course. *Prerequisites* (may be taken concurrently): 10.400, 10.442, 10.456. *Not open to undergraduates.*

10.457 Quantitative Methods in Decision-Making (Course)

Development of basic competence, judgment in using quantitative methods in the analysis of decision-problems. Significance and application of quantitative tools within the total management decision-making system. *Prerequisites:* 10.056 or instructor's approval of mathematical competence, 10.400, 10.442, 10.456 and 69.400 (69.400 may be taken concurrently).

10.657 Planning, Programming, Budgeting Systems (3)

Fundamental elements, requirements of efficient planning and control systems. Analytical capabilities required for output-oriented program structures. Application of measurements to management information systems, with emphasis on interdependence between quantitative and behavioral *Prerequisites:* Satisfactory completion of all M.B.A. First Year Courses or equivalents.

11.795 Seminar in Operations Analysis (3)

Problems of practical application of management science techniques. Students will be expected to formulate research projects. Supervised research and discussion. *Prerequisite:* Permission.

11.796 Doctoral Literature Seminar in Operations Analysis (3)

Discussion of current literature in Operations Analysis field. Emphasis on quantitative techniques applicable to interdisciplinary studies and their application in fields of interest to management. *Prerequisite:* permission. Restricted to doctoral candidates.

For information about additional course offerings in this field, see page 121. (operations analysis course requirements.)

Operations Research

See Technology of Management, under College of Continuing Education, page 134

Production (Industrial) Management

10.481 Principles of Production (Course)

Organization, operation of industrial enterprises. Economics of production. Organization, management of physical plant. *Prerequisites:* 10.307 or 10.400, 19.101 or 10.442.

10.581 Work Analysis (3)

Work methods, motion economy, individual's capacity for work. Measuring efficiency; fair day's work; job standardization; work measurement. Practical problems. Laboratory sessions.

10.582 Value Management (3)

Use of value engineering/value analysis as a management tool. Planned methodology and stimulated creativity to increase effectively profit potential by scientifically reducing costs.

10.583 Production and Material Control (3)

Objectives, application, organization of production control. Coordination with sales, manufacturing forecasts. Inventory control. Materials handling; selecting equipment, cost elements, training programs. *Prerequisite:* 10.481 or equivalent experience.

69.570 Quality Control (3)

See *Statistics*.

12.565 Physical Distribution Management (3)

See *Transportation*.

57.526 Industrial Psychology (3)

See *Psychology*

10.781 Seminar in Production Management (3)

Case problem seminar to develop skill in understanding and ability to deal with problems involved in management of industrial enterprises. *Required of students electing production management comprehensive examination. Prerequisite:* at least 6 graduate credits in production management.

PURCHASING

11.503 Purchasing Management (3)

Contribution to efficient operations. Policies, procedures, organization. Special reference to industrial goods by manufacturers, institutional purchasers. Recommended for marketing, sales management, production, general management students.

11.703 Seminar in Purchasing and Materials Management (3)

Advanced analysis of problems in purchasing, procurement, materials management. Coordination of production planning, inventory control purchasing. Application of integrated data processing. Case discussion, supervised research.

12.565 Physical Distribution Management (3)

See *Transportation*.

PUBLIC RELATIONS IN BUSINESS

12.540 Public Relations in Business (3)

Role of public relations in business, the scope and nature of the function, the policy role of public relations within the corporation.

10.500 Private Enterprise and Public Policy (3)

See Business—Government Relations

12.740 Public Relations in Business Seminar (3)

Case method, designed to bring into focus areas of public relations in business. Cases concerned with top level corporate problems. *Prerequisite:* 12.540 or permission.

See also courses listed under the Department of Communications.

Real Estate and Urban Development Planning

11.476 Fundamentals of Real Estate Investment (Course)

Principles, strategy. Analysis of risk, market, location, property. City growth, structure. Mortgage markets. Foundation course, particularly valuable for those wishing background for investing in real estate.

11.477 Real Estate Transactions (Course)

Principles, practices of listing, selling, title, transfer. Drawing documents. Contracts, deeds, financing, other instruments. Ownership rights, liens, taxes, assessments, other claims on real property.

11.570 Urban Development Systems (3)

Urban growth, structure, development, distribution of economic activity, economic base and input-output analysis, transportation, communication systems, development of public facilities, urban plants. Function of real estate, other business enterprises.

11.577 Real Estate Administration (3)

Management of real estate enterprises in a changing urban environment. Capstone course for undergraduates utilizing a computerized urban systems simulation model (land use and development game). *Prerequisite:* 11.476 or 11.477 or graduate standing

11.578 Real Estate Law (3)

Legal aspects of transactions for non-lawyers. Acquisition, encumbrance, transfer. Rights, obligations of parties. Survey of law, analysis of cases. *Prerequisite:* 11.476 or 11.477 or 31.401 or graduate standing

11.579 Home Building (3)

Site selection, design, building codes, zoning. Construction materials. Landscaping. Cost, financing. Building contracts

11.580 Apartment Construction (3)

Site selection, land planning, economic analysis, zoning, building codes. Design, materials, construction methods, management. Relationship to community growth, development. Trends, innovations.

11.584 Mortgage Banking (3)

Financing methods. Sources of funds, mortgage and capital markets, federal agencies. Direct lending. Offered with the cooperation of Mortgage Bankers Association of Metropolitan Washington. *Prerequisite:* 11.476, 11.477, or 11.578 or graduate standing.

11.683 Real Estate Market Analysis (3)

Analysis of real estate demand, supply in a local market. Sources of information. Analysis of population, changing city and housing markets. Forecasting. *Prerequisite:* 11.476, or graduate standing.

11.685 Land Planning & Use (3)

Land values and utilization. Location problems of consumers, businesses, industries, households. Changes in land use patterns produced by market forces and public policies. *Prerequisite:* 11.476 or graduate standing.

11.776 Seminar in Real Estate Administration (3)

Integrating case problem seminar to provide educational background for effective administration of varied activities of real estate firms. *Required of students electing real estate comprehensive examination.*

11.778 Seminar in Land Planning and Use (3)

Land planning and use from interdisciplinary point of view. Roles of land economics, government planning, and private sector. Urban renewal, new towns. Metropolitan problems. *Recommended background:* 11.685.

11.779 Seminar in Housing and Urban Development (3)

Housing goals; federal policy, local programs, role of private enterprise. Sources, uses of development capital, inter-regional flow of funds, mortgage market problems. Technology; housing for low income families, information data systems, infrastructure.

11.780 Doctoral Seminar in Literature of Real Estate and Land Planning (3)

Reading, analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. *Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.*

31.008 Institute on Tax Planning in Real Estate (no credit)

31.401 Property Management Institute I (Course)

31.501 Property Management Institute II (3)

31.504 Institute on Real Estate Appraisal I (3)

31.505 Institute on Real Estate Appraisal II (3)

See Institute, page 234.

Research and Development Management

See *Technology of Management under College of Continuing Education, page 134.*

Statistics

The Department of Mathematics and Statistics cooperates with the school both by offering service courses and by providing advanced courses for undergraduates pursuing the B.S. in Business Administration with a major in statistics as well as graduate students electing business statistics as a comprehensive examination field. For description, see the individual sciences course listings.

Technology of Management

The general designator of "technology of management" is used to comprehend a broad spectrum of systems characteristic of contemporary and future information and managerial methods and institutions.

For complete descriptions of programs and courses in computer systems, management information systems, operations research, research and development management and scientific and technical information systems, see page 134.

Transportation, Logistics, and Traffic Management

12.462 Fundamentals of Transportation and Logistics (Course)

Spatial relations in economy; economics of transportation service, pricing; interests, views of carriers and shippers; location theory, practice; geography of market structures; business logistics concepts, functions. *Prerequisite:* 19.101 or 10.442.

12.562 Transportation Theory and Regulations (3)

Relation of transportation to economic, political, social organization and to national development, economic theory applied to transportation, regulation and problems of national policy *Prerequisite* 12.462 or graduate standing

12.563 International Transportation Problems (3)

Structure, functions, operation of carriers engaged in overseas air, ocean transportation. Rates, services, regulation, governmental policies. *Prerequisites* 12.462 or 11.526 and permission of instructor.

12.565 Physical Distribution Management (3)

Physical distribution of products from origin of supplies and materials to consumer; plant location theory; case studies of transportation, materials handling, inventory control, warehousing in distribution systems. *Prerequisites* 12.462 or graduate standing, and 10.481 (latter may be taken concurrently).

11.507 Industrial Marketing Research (3)

See Marketing

12.566 Traffic Management (3)

Traffic management procedures, factors determining rates; rate structures, tariffs; classification; routing of traffic; carrier's liability; claims. Case studies in distribution and traffic management. *Prerequisite*: 12.565.

12.568 Interstate Commerce Law and Commission Practice (3)

Rules of procedure before Interstate Commerce Commission; rules of law; decisions of special interest in traffic administration; practitioner's code of ethics; due process; preparation of cases. *Prerequisite*: 12.562 or traffic management experience.

11.570 Urban Development Systems (3)

See Real Estate and Urban Development Planning

12.571 Trends and Problems in Transportation (3)

Principal issues, problems facing carriers of various modes of transportation in traffic, operation, regulation. *Prerequisites*: 12.462 and senior or graduate standing

12.572 Urban Transportation (3)

Development of and problems of land use; place in metropolitan planning; adjustment to changes in population, industry, social life; financing; local transit authorities, interstate compacts; rates, service. *Prerequisite*: 12.462.

12.662 Transportation Management (3)

Representative case problems; location of facilities; selection of equipment; market analysis; financing new equipment; scheduling, other distinctive problems; motor carriers emphasized. *Required of M.B.A. candidates electing transportation as comprehensive examination field.*

12.664 Management of Urban Transportation (3)

Problems of management, administration of urban transportation systems. Relations with regulatory agencies. Demand creation; financing; customer relations. Case method. *Prerequisite*: 12.572.

12.762 Seminar in Transportation (3)

Advanced analysis of problems in public regulation of all modes. Discussion and supervised research. Problems of public policy. *Required of Ph.D. candidates in business administration and economics electing transportation as comprehensive examination field.* *Prerequisite*: at least 6 graduate credits in Transportation

12.763 Seminar in Logistics (3)

Management of flow of materials from source of supply through processing to ultimate marketplace delivery. Logistics concept in planning, policy formulation, and strategy of production and marketing. *Required of Ph.D. candidates in business administration and economics electing transportation as a comprehensive examination field.* *Prerequisite*: at least 6 graduate credits in background courses

12.764 Seminar in Urban Transportation (3)

Urban transportation problems. Management case studies, planning, programming, budgeting, cooperation with Urban Transportation Center in research programs; interdisciplinary conferences. Synthesis of entire urban transportation field for M.S. degree. Major emphasis on individual assignments. *Prerequisite*: 12.664 (may be taken concurrently).

INSTITUTES IN TRANSPORTATION

31.020 Physical Distribution and Traffic Management Institute (No credit)

31.021 Air Transport Management Institute (No credit)

31.022 Railroad Management Institute (No credit)

31.025 Ocean Shipping and Foreign Trade Management (No credit)

See Institutes, page 234

Business-Government Relations—(See Business Administration)

Business Law—(See Business Administration)

Business Management—(See Business Administration)

Chemistry

15.009 Glass Blowing (No credit)

Demonstrations and laboratory practice in the repair, operation, and construction of glass apparatus. Permission of department required. One hour of demonstration, three hours of laboratory. Laboratory fee, all students, \$60.

15.100 Science of Chemistry (Course)

Science and human experience. Structure of the atom, the molecule, bonds and their properties. Reactions and equilibria. Organic and biochemical processes. Kinetic molecular theory, radioactivity. Demonstrations. No laboratory (Not for science majors.)

27.100 Earth Sciences (Course)

Survey of earth features and processes, time, weather, climate, the oceans, minerals, rocks, landforms, glaciers, volcanoes, earthquakes, origin and development of life, geologic history, resources.

15.120 General Chemistry I (Course)

Atomic theory, electronic configuration, bonding, molecular structure, periodic table, gases. Must be taken concurrently with 15.121.

15.121 General Chemistry I Laboratory (Quarter course)

Laboratory work associated with the theoretical material in 15.120. Must be taken concurrently with 15.120.

15.130 General Chemistry II (Course)

Kinetics and equilibrium. Thermodynamics. Electrochemistry. The elements and their compounds treated systematically. Must be taken concurrently with 15.131. *Prerequisite:* 15.120.

15.131 General Chemistry II Laboratory (Quarter course)

Laboratory work associated with the material in 15.130. Qualitative inorganic analysis. Must be taken concurrently with 15.130.

15.160 Natural Science I (Course)

Science-content oriented course designed from AAAS, SCIS, and COPES science program. Content: Interrelations: Biological and Physical Sciences; principles of physics and chemistry. Related laboratory experiences.

15.161 Natural Sciences II (Course)

Continuation of Natural Science I. Content: physical and chemical basis of life; organization of life; ecology; metabolism; reproduction; mechanisms of evolution. Related laboratory experiences using program materials.

15.200 Chemical Principles (Course-and-one-quarter)

Advanced placement for those with good background in high school chemistry. Emphasis on theories of general chemistry. Students must complete the year's work with 15.210 and 15.211. Three hours of lecture, three and one-half hours of laboratory project work.

15.210 Qualitative Inorganic Analysis (Course)

Inorganic solution chemistry. *Prerequisite:* 15.111 or 15.200.

15.211 Qualitative Inorganic Analysis Laboratory (Quarter-course)

Practice of separation and characterization of familiar ions. Students who have had 15.111 need not take this course. Three hours of laboratory. *Prerequisite:* 15.200.

15.310 Organic Chemistry I (Course)

Systematic and theoretical treatment of aliphatic and aromatic hydrocarbons, alcohols, halides, and ethers. Ionic and free radical reactions. Stereochemistry. Must be taken concurrently with 15.311. *Prerequisite:* 15.111.

15.311 Organic Chemistry I Laboratory (Half-course)

Laboratory theory and practice in synthesis. Introduction to organic qualitative analysis. Must be taken concurrently with 15.310. Six hours of laboratory. *Prerequisite:* 15.111.

15.320 Organic Chemistry II (Course)

Aliphatic and aromatic acids, nitrogen compounds, carbonyls, and their derivatives. Introduction to polyfunctional compounds. Must be taken concurrently with 15.321. *Prerequisite:* 15.310.

15.321 Organic Chemistry II Laboratory (Half-course)

Synthesis of polyfunctional compounds. Qualitative organic analysis. Introduction to infrared techniques and gas chromatography. Must be taken concurrently with 15.320. Six hours of laboratory. *Prerequisite:* 15.311.

15.350 Quantitative Analysis (Course)

Theory of gravimetric and volumetric analysis. The balance. Statistical analysis of data. Spectrophotometry. Potentiometry. *Prerequisite:* 15.320.

15.351 Quantitative Analysis Laboratory (Half-course)

Practice of gravimetric and volumetric analysis. Use of a spectrophotometer, a pH meter and a coulometer. Analysis of mixtures. Project work. Must be taken concurrently with 15.350. *Prerequisite:* 15.320.

15.390 Readings in Chemistry

15.410 Physical Chemistry I (Course)

Gases, laws of thermodynamics, solutions, equilibria, chemical equilibria, kinetic theory, chemical kinetics, electrochemistry. Must be taken concurrently with 15.411. *Prerequisites:* 15.210, 15.221, 41.223.

15.411 Physical Chemistry I Laboratory (Half-course)

Mathematical techniques, high vacuum systems, gamma of gases, heat of combustion, thermocouples, refractometry, fluid viscosity, rates of reactions, electrical conductivity, ionization constants, free energy enthalpy and entropy of an electrochemical reaction. Must be taken concurrently with 15.410.

15.420 Physical Chemistry II (Course)

Atomic structure, radioactivity, quantum chemistry, chemical bond, molecular structure, molecular spectra, chemical statistics, solids, liquids, surfaces. Must be taken concurrently with 15.421. *Prerequisite:* 15.410.

15.421 Physical Chemistry II Laboratory (Half-course)

Atomic spectra, Franck-Hertz, the oscilloscope, the electro-scope, Kerr effect, Faraday effect, Hall effect, magnetic susceptibility, dielectric constant, spectrum of Beta-carotene, viscosity of polymers, molecular weight by light scattering, critical surface tension. Must be taken concurrently with 15.420.

15.460 Instrumental Quantitative Analysis (Course)

Theory of optical, electroanalytical and spectrophotometric methods; emission spectroscopy; flame photometry; atomic absorption spectrophotometry; polarography; amperometry; coulometry; potentiometry. Analysis of errors. *Prerequisites:* 15.410, 15.350 and 15.351.

15.461 Instrumental Quantitative Analysis Laboratory (Half-course)

Practice of optical, electroanalytical and other instrumental methods. Project work. Must be taken concurrently with 15 460. *Prerequisites:* 15 400, 15 350 and 15 351.

15.490 Independent Project in Chemistry**15.491 Cooperative Work-Study Program (No credit)**

Work and study at cooperating research laboratories for six-month periods. Contact Dr. Doris Hadary for information. *Prerequisite:* permission, Dr. Hadary.

Undergraduate students enrolled in .500 level courses receive one course unit.

15.520 Advanced Organic Chemistry I (3)

Theoretical and systematic organic chemistry. Stereochemistry and electronic effects. Ionic and free radical reactions. *Prerequisites:* 15 320 and 15 401.

15.521 Advanced Organic Chemistry II (3)

Theoretical and systematic organic chemistry. Rearrangements and aromatic chemistry. Steroids. *Prerequisite:* 15 520.

15.522 Qualitative Organic Analysis (3)

Identification of organic compounds including classical procedures and modern techniques such as infrared analysis and gas chromatography. Separation and identification of organic mixtures. One hour of lecture, 6 hours of laboratory. *Prerequisite:* 15 320.

15.546 Thermodynamics and Statistical Mechanics (3)

Laws, thermodynamic properties and potentials, phase changes, ideal and real solutions, chemical reactions, probability, distribution functions, phase space, Boltzmann equation, fluctuations, grand canonical ensemble, quantum statistics. *Prerequisites:* 15 420 OR 51.572. (Same as 51.560 in physics department)

15.550 Advanced Inorganic Chemistry II (3)

The classical atom. The quantum mechanical atom. Ionic bonding, lattice energy. Covalent bonding, valence bond approach, molecular orbital approach. Dipole-dipole interactions. Van der Waal's forces. *Prerequisite:* 15 410.

15.551 Topics in Inorganic Chemistry (3)

Bonding in metals. Transition metal chemistry including ligand field theory. Jahn-Teller effect. The trans effect. Reaction mechanisms, inorganic materials, boron hydrides, rare gas compounds, inclusion compounds, inorganic polymers. *Prerequisite:* 15 550.

15.560 Biochemistry I (4)

The chemistry of carbohydrates, proteins, and fats. Blood and respiration. Renal function and acid-base balance. Three hours of lecture, four hours of laboratory. *Prerequisites:* 15 320 and 15 401.

15.561 Biochemistry II (4)

General properties of enzymes. Biological oxidation. Metabolism of carbohydrates, proteins and fats. Three hours of lecture, four hours of laboratory. *Prerequisite:* 15 560.

15.575 Special Topics in Chemistry (3)

Selected topics of an intradisciplinary, interdisciplinary, or multi-disciplinary nature. May be repeated for credit if a different topic is covered. *Prerequisite:* permission from Chemistry Department.

15.589 Advanced Topics in Chemistry (3)

Selected topics. Designed for secondary school science teachers as part of an *In-service program*. May be repeated for credit if a different topic is covered. *Prerequisite:* permission of department head.

15.590 Readings in Chemistry**15.690 Independent Project in Chemistry.****27.600 Advanced Topics in Earth Sciences (3)**

Selected topic or topic in earth sciences. May be repeated for credit if a different topic is covered. For teachers enrolled under the provisions of an *In-service program* sponsored by the National Science Foundation. Others only with permission of Institute Director, Dr. Leo Schubert.

15.600 Advanced Physical Chemistry I (3)

Classical mechanics, quantum mechanics, spectra, MO theory, statistical quantum thermodynamics, and intermolecular forces. *Prerequisite:* 15 401.

15.601 Advanced Physical Chemistry II (3)

Chemistry of the liquid and solid states, interaction of electromagnetic waves with matter, cooperative phenomena, theory of rate processes, and irreversible thermodynamics. *Prerequisite:* 15 600.

15.608 Special Topics in Physical Chemistry (3)

May be repeated for credit if a different topic covered. *Prerequisite:* 15 600.

15.610 Advanced Inorganic Analytical Chemistry (3)

Modern analytical methods and separations. *Prerequisite:* 15 460.

15.618 Special Topics in Analytical Chemistry (3)

May be repeated for credit if a different topic covered. *Prerequisite:* 15 610.

15.619 Inorganic Preparations (3)

Theory and practice of inorganic preparations. Synthesis of representative compounds. One hour of lecture, 6 hours of laboratory. *Prerequisites:* 15 460 and 15 550.

15.623 Organic Preparations (3)

Preparative methods of organic chemistry. Emphasis on techniques: vacuum distillation, chromatography, extractions. Preparations from original literature. One hour of lecture, 6 hours of laboratory. *Prerequisite:* 15 520.

15.628 Special Topics in Organic Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15 521.

15.632 High Polymer Chemistry (3)

Concepts of macromolecules and their non-homogeneous nature. Physical-organic chemistry of polymerization. Behavior and structure of polymers. Demonstrations of laboratory techniques. *Prerequisites:* 15.320 and 15.401

15.640 Colloid and Surface Chemistry (3)

Application of physicochemical principles of colloidal systems. Solid and liquid surfaces, sorption, large molecules in solution, structure of natural and synthetic colloids. *Prerequisite:* 15.401.

15.642 Chemical Kinetics (3)

Order and molecularity of reactions. Activated complex; theory for elementary reactions. Reactions in solutions and on surfaces. Complex reaction mechanisms. Non-isothermal kinetics. *Prerequisite:* 15.400.

15.643 Quantum Chemistry I (3)

The eigenvalue problem. Operators and matrices. Introduction to group theory. Elementary wave mechanics. Atomic spectra. Molecular orbital theory. *Prerequisite:* 15.600.

15.644 Quantum Chemistry II (3)

Interpretation of electronic, rotational, and vibrational spectra of molecules. Quantum mechanical calculations, using LCAO-MO-SCF techniques. *Prerequisite:* 15.643.

15.658 Special Topics in Inorganic Chemistry (3)

May be repeated for credit if a different topic covered. *Prerequisite:* 15.551.

15.668 Special Topics in Biochemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.561.

15.670 Electrochemistry I (3)

Double layer and electrokinetic phenomena; electrode processes; nonaqueous solvents; corrosion; electroplating; batteries; fuel cells; biochemical processes. *Prerequisite:* 15.401

15.671 Electrochemistry II (3)

Application of electrochemistry to energy conversion processes (batteries and fuel cells), electroplating, corrosion and detection. *Prerequisite:* permission.

15.700 Seminar in Chemistry (1)

Selected topics. Preparation and presentation of a paper of professional quality. *Prerequisite:* permission of department.

15.797 Master's Thesis Seminar (3-6)**15.799 Doctoral Dissertation Seminar (6-12)****Christian Thought—
(See Philosophy and Religion)****Church Management—
(See Business Administration)****Church Music—
(See Music)****Commercial Banking—
(See Business Administration)****Communication****17.100 Introduction to Mass Communication (Course)**

Historical, social, legal and economic aspects of mass media; current practices and responsibilities, communication aspects of public relations and advertising. Required of all department majors.

17.101 Writing for Mass Communication (Course)

Basic written techniques of mass communication. Intensive practice in forms of writing for mass media. Three-hour weekly laboratory arranged. Required of all department majors. *Prerequisite:* 17.100.

17.201 Introduction to Human Communication (Course)

Current human communication theory from disciplinary points of view, how communication affects individuals in their personal and social lives. *Prerequisite:* permission.

.300 level courses are open to juniors and seniors only.

17.320 Reporting I (Course)

Fundamentals of news gathering, news writing and news judgment for all the media; study of news sources, research and interview techniques; supervised writing. *Prerequisite:* 17.101.

17.322 Editorial Policies and Methods I (Course)

Instruction and practice in editing for media. Copy editing and editorial judgment. Use of wire copy. *Prerequisite:* 17.320.

17.325 Feature Article Writing (Course)

Study of various types of feature articles for newspapers, syndicates, magazines, and specialized publications; practice in research, interviewing, writing, revision and the marketing of articles. *Prerequisite:* 17.322.

17.333 Fundamentals of Radio-TV-Film (Course)

Fundamental principles and professional practices in broadcast and film media. Students produce and perform basic experiments and exercises. Laboratory hours arranged.

17.342 Magazine Journalism (Course)

Survey of contemporary periodicals, their backgrounds, trends, functions, staff organization, free lance sources, editorial policies and practices. *Prerequisite:* 17.100.

17.343 Photography (Course)

Photographic fundamentals through the intensive use of the camera in assignment situations and laboratory work in film processing and photographic printing of those assignments. Three-hour weekly laboratory arranged. *Prerequisite:* Communication and art majors or department permission.

17.344 Business Journalism (Course)

Policies and practices of newspapers and periodicals devoted to business and industry; association publications, employee publications, house organs, and newsletters. *Prerequisite:* 17.101

17.345 Community Journalism (Course)

Special problems and practices of community, suburban, and special-interest dailies and weeklies. *Prerequisite:* 17.101.

17.346 Scientific and Technical Journalism (Course)

Techniques of writing and editing scientific and technical material for the general audience and specialist. *Prerequisite:* permission of department.

17.381 Development of Broadcasting-Film (Course)

A comprehensive study of trends and historical precedents in the broadcast and film industries of the United States with emphasis on control, financial, governmental, program, and technical factors

17.382 Writing for Broadcast-Film (Course)

Techniques of script writing for broadcast and film. Students write and criticize assignments.

17.383 Radio Production and Programming (Course)

Radio programs and their determinants. Students produce, direct and criticize assignments.

17.384 TV Studio Operations (Course)

Principles and practice in the operation of television studio equipment. Laboratory. *Prerequisite:* 17.381.

17.385 Broadcast Journalism I (Course)

Practice in application of news writing and editing to broadcast media; emphasis on editorial responsibility. Use of wire copy and tape recorders in producing news broadcasts. Production of radio documentaries. *Prerequisite:* permission of instructor.

17.390 Readings in Communication

17.490 Independent Project in Communication

Undergraduates enrolled in 500 level courses receive one course unit.

Graduate students enrolled in 500 level courses receive three credits. (500 level courses are open to advanced undergraduates and graduates, 600-700 level courses are open only to graduate degree students.)

17.500 Communication History (3)

Development of newspapers, magazines, radio, television and motion pictures, and their influence on contemporary ethics and practices. *Prerequisite:* permission of department.

17.501 Legal Aspects of Communication (3)

Current legal problems; theory of controls in journalism, visual communication, television and radio. Analysis of libel suits, copyrights, infringement. No previous knowledge of law required. *Prerequisite:* permission of department.

17.503 Mass Media and Society (3)

Role of newspapers, magazines, radio, television and motion pictures, and their impact on society. *Prerequisite:* permission of department.

17.507 Freedom of Information (3)

Investigation of access and barriers to information at local, state, national and international levels. Rights and responsibilities of communication media, government agencies, and the public. *Prerequisite:* permission of department.

17.520 Editorial Policies and Methods II (3)

Advanced training to develop editorial judgment and skills in processing material for publication; study of problems and practices in making assignments, handling departments, and dealing with wire copy, 4-hour laboratory arranged. *Prerequisite:* 17.322.

17.521 Editorial Interpretation (3)

Editorial page policies and practices; supervised writing of various types of editorials on current subjects; analysis of editorial columns and interpretative reviews. *Prerequisite:* permission of instructor.

17.523 Advanced Photography (3)

Advanced work in photography utilizing the photograph as a means of communication through media presentation. Includes extensive assignment situations throughout the Washington, D.C. area. Spring semester includes photographic work in London, England. *Prerequisites:* 17.343 and permission of instructor.

17.524 Reporting II (3)

Advanced training in writing news for publication, with emphasis on specialized areas of coverage; student assignments in selected fields for one day a week. *Prerequisite:* permission of instructor.

17.526 Advanced Feature Article Writing (3)

Principles and methods of writing feature stories for publication. Individual attention to problems. Students submit articles for publication. *Prerequisite:* 17.325.

17.528 Broadcast Journalism II (3)

For advanced students. Production of news broadcasts, including documentary film. Actual broadcast of news programs. Examination of broadcast practices; effects of broadcast journalism on society. *Prerequisites:* 17.381 and permission of instructor.

17.531 International Communication Systems (3)

Communication of news and opinion among nations and under varying types of social, political, and economic systems. Uses of mass media in national development; chief patterns of mass communication throughout the world. *Prerequisite:* permission of department.

17.532 Publication Layout and Design (3)

Layout, typography, design, and printing in the planning and production of newspapers, magazines, books, brochures, and folders. *Prerequisite:* permission of department.

17.536 Government News Reporting (3)

Field work coverage of federal, state and local government. Washington used as laboratory. Intensive work on in-depth reporting, writing and editing. One full day a week. *Prerequisites:* 17.320 and permission of department.

17.540 Principles of Public Relations (3)

Historical development of public relations; economic, political and social factors in relations between publics and media in the formation of public opinion. Case studies of current practices in Washington, D.C.

17.542 Promotional Campaigns (3)

Case studies of promotional methods of business, government, and social organizations; development of promotional campaigns by each student for an institution in Washington, D.C. *Prerequisite:* 17.540

17.544 Public Relations and Government (3)

Analysis of public information programs conducted by governmental and non-governmental agencies to influence various publics and institutions on key government issues. Intensive research and journalistic reporting of actual information programs in Washington, D.C. during the semester. *Prerequisite:* 17.540.

17.545 Public Relations in Business (3)

Case studies in business and industrial relationships with various publics, e.g., labor, trade, dealer, customer, stockholder, and community. *Prerequisite:* 17.540.

17.558 History of Motion Pictures (3)

Historical development of the motion picture from a laboratory curiosity until the present day. Films, primarily of American origin, viewed, discussed and criticized.

17.583 Film Production and Direction (3)

An intensive introduction to all aspects of film production and direction including writing, cinematography, editing and criticism of motion pictures. *Prerequisite:* for majors: 17.333.

17.584 Television Production and Direction (3)

Comprehensive introduction to television program production. Students write, produce, direct, and criticize television assignments. *Prerequisite:* 17.333.

17.588 Television Programming (3)

Principles of planning radio and television programs and program schedules. *Prerequisite:* 17.381.

17.589 Seminar in Broadcasting and Film (3)

In depth of certain areas and problems in broadcasting and film not covered in the regular sequence of courses. Topics will vary from semester to semester. May be repeated for credit when topics vary. *Prerequisite:* permission of department

17.590 Readings in Communication**17.591 Internship (1-3)**

Supervised study of communication practices at selected organizations. See Department of Communication chairman for placement. *Prerequisite:* 6 hours in major and recommendation of faculty advisor.

17.601 Experimental Research in Communication (3)

Research problems in experimental methods applied to topics in communication. Systematization of observation, uses of sampling, measurement, and experimental design are considered. *Prerequisite:* permission.

17.690 Independent Project in Communication**17.710 Seminar in Public Affairs (3)**

Intensive study of current issues and making of public policy in Washington; with special emphasis on the role of the media. *Prerequisite:* permission of instructor.

17.720 Seminar in Journalism (3)

The direction of the media and the problems they face. Emphasis on individual research projects. *Prerequisite:* permission of instructor.

17.724 Reporting of Public Affairs (3)

Advanced training in writing news for publication with emphasis on current major issues. One full day a week. Conducted with Seminar in Public Affairs (17.710). *Prerequisite:* permission of instructor.

17.740 Seminar in Public Relations (3)

Formulation of policies for long-range public relations programs. Emphasis on individual research projects. *Prerequisite:* permission of department.

17.760 Methodology of Communication Research (3)

Introduction to the logic of scientific inquiry and to the strategy and content of research in mass communication. Purpose is to develop both substantive awareness and critical sophistication of mass media research. *Prerequisite:* permission of department.

17.797 Master's Thesis Seminar (3-6)

For those students writing a thesis in communication. Do not register without formal approval of thesis topic by department faculty.

ADVANCED ELECTIVE COURSES

The following courses are not required in the degree programs. They are occasionally offered when resources permit, as electives or for non-degree and off-campus programs through the College of Continuing Education, intersession or summer session. Graduate students receive three credits for 500 level courses.

17.527 Advanced Scientific and Technical Journalism (3)

Writing and editing scientific and technical manuals, reports, proposals, articles, and films. *Prerequisite:* 17.346.

17.541 Publicity Writing (3)

Writing for public relations, publicity, and promotional programs; preparation of news releases, articles for magazines and trade journals, broadcasting scripts and promotional booklets. *Prerequisites:* 17.320 and 17.540.

17.543 Public Relations Abroad (3)

Problems of public relations in international affairs; case studies of American business public relations practices in other countries. *Prerequisite:* permission of department.

17.546 Audio-Visual Communication (3)

Problems of communicating through modern audio-visual media. Emphasis upon communication studies and findings in perception, learning, attention and related areas. Students prepare materials and gain experience with audio-visual devices and systems.

17.561 Advanced Writing for Broadcast-Film (3)

Writing and criticism of documentary, dramatic and other types of complex programs for television and film. *Prerequisite:* permission of department.

17.581 Educational Broadcasting (3)

History, role, current problems, and trends in educational television and radio including studies of organizations, programs, networks, and systems.

17.585 TV Production and Direction II (3)

Advanced training in longer, more sophisticated television programs. *Prerequisite:* 17 584.

17.782 Broadcasting and the Public Interest (3)

Responsibilities of the broadcaster in terms of "public interest, convenience, and necessity"; comparison of U.S. and foreign programming *Prerequisite* permission of department.

College of Continuing Education

Center for Technology and Administration

Preparatory Courses

COMPUTER SYSTEMS

55.310 Introduction to Data Processing (Course)

Overview of modern data processing Elements of digital computer system organization, operation and programming; survey of computer applications, systems analysis and information science. *Prerequisite:* 41.101 or equivalent.

55.333 Computer Programming—FORTRAN (Course)

Basic concepts of computer programming using FORTRAN. *Prerequisites:* 53.310 or equivalent.

55.334 Computer Programming—COBOL (Course)

Basic concepts of computer programming using COBOL (Common Business Oriented Language). *Prerequisite:* 55.310 or equivalent.

55.390 Reading Project**55.411 Introduction to Management Mathematics (Course)**

Mathematical logic, elementary point set theory, finite probability, Markov chains, difference equations, vectors and matrices and matrix games. *Prerequisite:* 41.101. Not required where 41.110 and 41.111 (or equivalents) have been completed satisfactorily.

55.490 Independent Project

GENERAL COURSES

55.511 The Systems Approach (3)

Introduction to the systems analysis approach to the study and design of managerial and operational organization and process. Fundamental to all other courses in this general sequence, or for anyone who expects to be responsibly concerned with managerial, operational or control organizations and processes of business or government. Includes problem exercises to illustrate the rigor of the discipline and the nature and scope of its applications. *Prerequisites:* 69.202 or 69.400.

55.512 Introduction to Cybernetics (3)

Introduction to the abstractions of Cybernetics. Operational aspects of human intellect are translated into machine simulation and examined for validity of communication and control. The man-machine symbiosis is

studied as a means to augment man's capability to solve complex problems. The stability of large and small systems through homeostatic control included Mathematical explanations are kept at a minimum.

55.513 Technology and Administration (3)

Effects of technological and scientific development on the organizational, operations, and staff functions of the public or private administrative establishment. Implications for the manager and managerial unit of the information and cybernetic revolutions, and modern technological instruments and methods for the performance of societal and administrative functions. Reciprocal effects of managerial requirements on technological development. Includes a general appreciation but not an intensive development of the significance of research and development for the general manager or administrator. *Prerequisite:* 55.511.

55.530 Automatic Data Processing Systems (3)

Large scale computer system organization and design. Detailed analysis and design of a large business or government computer system application followed by technical design of appropriate hardware/software and system specification. Queuing, communications, cost-benefit analysis, equipment capabilities and system design problems of real-time environment stressed. Emphasis on thorough development of system application and implementation rather than on hardware engineering or component design. *Prerequisites:* 55.310, 69.400. An ability to handle moderately advanced mathematical and statistical tools is very desirable.

55.531 Computer Design (3)

Boolean Algebra with application to switching elements, control, arithmetic units and converters, error detection and correction, interrupt logic, logic of storage elements and sequential circuits. *Prerequisites:* 55.530 and 55.411 or 41.111.

55.590 Reading Project**55.632 Advanced Computer Applications (3)**

Design, development and programming of mathematical models and simulations. Deterministic, stochastic and heuristic models, measurement and scientific method, data acquisition and field work. Related programming techniques. *Prerequisites:* one programming language, 69.484 and 55.530, or permission.

55.633 Programming Systems and Language (3) (formerly Evaluation of Software)

Examination of basic attributes of major classes of programming languages and systems. Characteristics that describe basic differences between types of languages emphasized. Roles of various operating systems briefly examined; as well as problems of operating systems design, and implementation. *Prerequisites:* 55.333 or 55.334 and 55.530.

55.635 Workshop in Computer Systems (3)

Advanced computer applications with emphasis on special projects. *Prerequisites:* 55.632 and permission.

55.637 Workshop in Operating Systems (3)

Operating system concepts necessary for the management of automatic data processing installation. Include job scheduling, program management, and data files. Utilities, compilers, special purpose languages, telecommunications, and software sources are also discussed. *Prerequisites:* 55.531, 55.633.

55.690 Independent Project Seminars

Prerequisites: Permission

55.699 Masters Thesis Seminar: Computer Systems (3-6)

55.730 Seminar in Computer Systems (3)

offered with varying sub-subjects.

55.666 Cost-Benefit Analysis (3)

Examination of the techniques used to evaluate non-market oriented goods and services. *Prerequisites:* 55.411, 55.544, or 41.223.

SEMINARS:

Prerequisite: Permission.

55.740 Seminar in Operations Research (3)

Offered with varying sub-subjects

OPERATIONS RESEARCH

55.540 Operations Research in Management (3)

Review of general field of Operations Research and its role in the decision making process. Comprehensive overview of the field. Modeling techniques and applications of a variety of prototype problems are covered, including linear programming, inventory and queuing models, replacement and maintenance models. Markov chains, simulation and dynamic programming models. Mathematics employed limited to elementary Algebra and Statistics, stresses the quantitative approach. Not to be taken if OR is a comprehensive field. *Prerequisite:* 69.300 or 69.400.

55.542 Probability and Statistics for Management Decisions (3)

Decision under uncertainty; cost of uncertainty; probability distributions; conditional models; Bayesian approach; sequential decision procedures; hypothesis testing; estimation. *Prerequisites:* 69.300 or 69.400; 41.111 or 55.411.

55.544 Advanced Management Mathematics (3)

Review of mathematics necessary for advanced work in Operations Research. Sets and relations; mathematical induction; series; limits and continuity; differentiation; optimization; integration; differential equations; probability theory. *Prerequisite:* 41.111. Not required where 41.222 and 41.223 (or equivalents) have been satisfactorily completed recently. This course will be required, as a prerequisite for 55.641, of students whose differential and integral calculus were taken more than ten years ago.

55.641 Methods of Operations Research I (3)

Review of statistical basis for sampling, inventory, replacement and sequencing problems; mathematical programming including linear, non-linear and integer programs; competitive strategies and their methods of solution. *Prerequisites:* 55.542 and 55.544 or equivalent (as stated under 55.544)

55.642 Methods of Operations Research II (3)

Role of selected probability distributions in OR; Queuing Theory and Applications; Markov Processes; Dynamic Programming and extensions integrating Markov Processes; selected problems in simulation. *Prerequisite:* 55.641 or permission.

SCIENTIFIC & TECHNICAL INFORMATION SYSTEMS

55.550 Survey of Information Science and Technology (3)

Introductory survey of scientific and technical communications field with emphasis upon modern mechanized methods. Information theory, documentation, reprography, computer-aided photocomposition among the topics covered. Symbiotic relationship between the publishing field and information storage and retrieval systems stressed as underlying philosophy of the course. A prerequisite for all other courses in the Scientific and Technical Information Systems area. *Prerequisite:* 55.310 or equivalent experience.

55.650 Natural Language Data Processing (3) (formerly Computational Linguistics)

Basic knowledge of computational linguistics, useful in any field in which computer is called upon to interpret or to analyze natural language such as indexing and classifying documents, extracting and abstracting, analyzing stylistic variations, machine translation and automating concordances. Non-specialist oriented introduction to field for information scientists, computer programmers, librarians and others interested in learning the scope of computer applications in alleviating some of the more tedious and repetitive tasks of scholarly research. Students of modern linguistics should be particularly concerned with the implications of this powerful tool in their discipline. *Prerequisite:* 55.550 or equivalent experience.

55.651 Technical Information Machine Systems (3)

Application of machine systems with major emphasis on the handling of the scientific and technical literature. Capabilities of mechanized systems emphasized, with adequate consideration given to software developments. File organization and record formatting stressed. User requirements and evaluation techniques form the central core of this course. *Prerequisites:* 55.530, 55.550 or their equivalents in experience.

55.653 Concept of Abstracting and Indexing (3)

The impact of automatic data processing and mechanized methods upon processing and dissemination of information, emphasizes mainly intellectual functions to which this information must be subjected before and after machine intervention "Arts" of abstracting and indexing. Analyzes technical writing, annotating, indicative and informative abstracting, classification methods including the Universal Decimal Classification and faceted classification, word indexing both in- and out-of-context, vocabulary control and Thesaurus-building, links and roles, citation indexing and relevance recall ratios. Students must abstract and index limited number of documents in their own fields of interest and specialization. *Prerequisite:* 55 550 or equivalent experience.

55.654 Workshops in Technical Information Handling (3)

From time-to-time, as warranted by current interest, faculty availability and composition of the student body, special topics will be covered. Examples are chemical notation systems, specialized information needs of various disciplines and professions (e.g. law, medicine, business administration, etc.), and integrated information networks. Students may repeat this course several times, provided that identical topics are not duplicated. *Prerequisite:* 55 550 or permission of the instructor.

55.655 Automated Library Systems (3)

Introduction to the application of Systems Analysis and computers to the modern library. Library functions are analyzed systematically with a view toward the automation and mechanization of such clerical functions as book and journal acquisitions, preparation of accession lists, charging-out routines, etc. In addition, the use of the computer in the production of catalog cards, book catalogs, bibliographies and indexes is emphasized. Techniques for the evaluation of library effectiveness discussed with the ultimate aim of providing maximum user satisfaction. Particularly directed at practicing librarians who wish to apply modern systems of technology to their own libraries. *Prerequisite:* 55 550 or permission of the instructor.

55.656 Publication Techniques (3)

Careful analysis of primary journal publication with emphasis on economic factors. Computer-aided photocomposition technology, emphasis on machines such as the Photon, Videocomp and Linotron. Mechanized processing of primary publications, abstracts and indexes as part of an integrated system in which scientific and technical publications are part-and-parcel of information storage and retrieval systems, i.e. the Medical Literature Analysis and Retrieval System (MEDLARS) of the National Library of Medicine. *Prerequisite:* 55 550 or permission.

55.068 Sources of Scientific Information—One Science

As stated in the introductory description of comprehensive fields, available, very selectively, only to Ph.D. students who also elect 55.065 *Scientific and Technical Information Systems*. The related course work or independent study or research will depend on the particular scientific field involved, and will be individually planned for the student on the basis of what is available from cooperating science departments in this University or the other members of the Consortium of Universities.

MANAGEMENT INFORMATION SYSTEMS**55.560 Systems Design for Business Operations (3)**

Opportunity to develop and defend specific management sciences techniques against both hypothetical and actual business operations and problem areas. Use of case studies, group discussions and projects, against current business operations, guidance in developing firm understanding of relationships and dependence upon interdisciplinary approaches to problem recognition, definition, development of alternatives and ultimate selection of optimum solution based on cost effectiveness. *Prerequisite:* 55 530.

55.561 Management of Automatic Data Processing Systems (3)

Examination of unique problems, functions and requirements of data processing management. Within role of this management, planning, installation, operation and organization of computer facility examined. Executive interaction stressed, specifically in decision-making, planning and evaluation functions. The course content is developed through lectures and reports. *Prerequisite:* 55 530.

55.560 Management Information and Reporting Systems (3)

Provides an understanding of the complexity of an integrated information system and its components. Covers system design, development, application, utilization and evaluation. Various philosophies concerning the manner and degree of depth and breadth of the integrated management information system approach reviewed. Advanced management techniques (e.g., real-time systems, time sharing, file management systems, models, simulations, operations research and cybernetics) are discussed in terms of their applicability to Management Information and Reporting Systems. *Prerequisites:* 55 530, 55 560, and 55 561.

55.561 Workshop in Data Communications—MIS

Develops understanding and perspective in the relationship of data communications and management information systems. Review of technique and systems involving data and information dissemination and control. Impact of data communications on organization at the planning, control and operational levels explored. *Prerequisite:* 55 530.

SEMINARS:

Prerequisite: permission.

55.760 Seminars in Management Information Systems (3)

Offered with varying sub-subjects.

- 55.797 Masters Thesis Seminars (3-6)**
- 55.799 Doctoral Dissertation Seminars (3-12)**

RESEARCH & DEVELOPMENT MANAGEMENT

55.570 Management of Research and Engineering Organizations and Laboratories (3)

Basic course on management of research and engineering organization. Discussion of the full spectrum of elements in such an organization-utilization of resources, comparison of government and business, establishment of procedures and methodologies for effective and efficient operations. *Prerequisites:* for undergraduates 55.310 or 10.481. For graduate students, comparable course work or experience.

55.670 The Politics and Economics of Research and Development (3)

Magnitude, characteristics, and politico-economic significance of the R&D economy of the U.S. and, comparatively, of other countries. Structure and nature of the U.S. research industry. Government-business defense economy. Governmental non-military research. Business and industrial research. Trends and forecasts. National resources allocation, and other political and economic problems. *Prerequisite:* Permission.

55.671 R & D in the Total Organization (3)

Criteria for top management decisions: (a) capabilities of scientific, technological, and social science research; (b) utilization for needs of the specific organization; (c) definition of R&D requirements, in-house and/or external implementation, determination of budget; (d) evaluation of success and contribution to organizational objectives; (e) conversion of R&D results into governmental or business applications, products, or processes. *Prerequisite:* 55.570.

55.672 Scientific and Engineering Manpower (3)

Study in depth of scientific and engineering manpower stressing role of individual in the R&D environment and his interface with the total resources of which he is a part. Impact of the innovative forces at work. For advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses.

55.673 Planning and Control of Research and Development Operations (3)

Study in depth of role of today's research and development manager. Review of operational policies and goals. Forecasting, planning and programming techniques, analysis methodology. Exercise of "value judgments." Intended for the advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses. NOTE: If 55.770 is not offered in any given semester, 55.673 will be accepted as the SGPA Master's research requirement (in lieu of thesis).

SEMINARS:

Prerequisite: Permission.

55.770 Seminar in Research and Development Management (Masters)

For course content, see 55.673. Offered for students whose program requires a seminar in lieu of a thesis for a master's degree. *Prerequisites:* 55.570 and at least one other of the above R&D courses, and permission.

55.775 Seminar in Research and Development Management (3) (Doctoral)

Critical review of literature pertinent to modern R&D management, intended to develop within the R&D executive a clear grasp of the applicability of current knowledge of problem solving. A study in depth of today's research and development manager. Intended for the very advanced graduate student. *Prerequisite:* permission.

Administration of Justice

73.101 Introduction to the Administration of Justice (Course)

73.102 Introduction to the Administration of Justice (Course)

Two semester survey of the system of justice in America; law enforcement, civil and criminal courts, corrections, non-judicial organizations for the resolution of conflict, administrative and quasi-judicial regulatory agencies, remedies and procedures available to the poor; relation of justice system to social change.

73.150 Social Processes and Deviant Behavior

Systematic consideration of conformity and deviance within social structures. The nature of interactions between persons and groups which produce deviance. How and by whom deviant behavior is defined and the effect of labeling upon the community and the person labeled.

73.201 The Administration of Justice and the Community (Course)

Impact of the community on the system and the system's response. The community's perception of police, courts, and corrections. Concepts of community relations and public relations; prejudice and discrimination, their effects on the administration of justice in a changing and interacting society; emphasis on problems and processes arising from contacts of people different as to race and culture; prejudice, discrimination, conflict, accommodation, acculturation, amalgamation, assimilation. Problems of justice in the inner city.

73.210 Administrative Concepts in Law Enforcement and Public Safety I (Course)

Basic principles of administration and management as applied to the police function. Emphasis on police organization and management, the staff function and the police role.

73.211 Administrative Concepts in Law Enforcement and Public Safety II (Course)

Police operations including patrol, investigation, traffic, juvenile, and special operations.

73.220 Criminal Justice and the Constitution (Course)

Constitutional limitations on the criminal justice system; its processes; implications of Federal constitutional protection with respect to police investigation, pre-trial, trial, and post-conviction processes, and definition of offenses.

73.221 Substantive Aspects of Criminal Law (Course)

Substantive criminal law emphasizing the criminal law of the jurisdiction concerned against the background of Common Law. Specific offenses including offenses against the person, habitation, property, public peace, morality, and the administration of governmental functions. General principles of criminal law including the extent to which the law attributes criminality to acts or omissions; criminal intent and *mens rea*; attempts; conspiracy, infancy, insanity, and drunkenness. Special defenses, public authority, prevention of crime, self-defense, and defense of others, entrapment, mistake and ignorance.

73.230 Contemporary Corrections in the United States (Course)

A survey course on current correctional thought and practices in the United States. The evolution of modern correctional practices in the United States. An overview of correctional treatment in different types of institutions and in the community.

73.250 Psychology for Law Enforcement Officers (Course)

Psychological processes in criminal law enforcement behavior, special attention to motivation.

73.251 Intoxication and the Law (Course)

Analysis of the alcoholic in terms of the social processes which produce him, including law enforcement, judicial and correctional systems, the legal system's response to him, and its effects.

73.252 The Juvenile and the Law (Course)

Introduction to the philosophy and methods of agencies of law in the prevention of juvenile delinquency and youth crime. Emphasis on specific problems, issues and techniques as they relate to professional knowledge, public policy, and the law.

73.253 Juvenile Delinquency and Youth Crime (Course)

Development of the individual through childhood and adolescence as it relates to delinquency and crime; special characteristics of juvenile and youthful criminality; current principles, policies, and practices for its prevention and control. Factors producing delinquency, juvenile detention, and juvenile court, training schools, treatment of the offender.

73.254 History and Philosophy of Criminology

A basic course presenting the history of criminological thought, including traditional and contemporary schools of thought. The extent and nature of crime in the United States today. Sources of information re crime and criminals. Characteristics affecting crime and criminals.

73.310 Traffic Regulation and Control (Course)

Organization for traffic regulation, traffic problems and trends, traffic laws, traffic surveys, handling special events, traffic control and accident investigation and other traffic problems. Principles, methods, procedures in the investigation of accidents; recording, use of data.

73.311 Introduction to Forensic Science (Course)

Scientific analysis and identification of evidence, identification of documents, special police techniques, interpretation of medical reports, and preparation of reports.

73.312 Drug Abuse Control (Course)

Analysis of drug abuse in contemporary society. Effects of drug misuse upon the individual and society; definition, classification, and a review of the literature. Problems of misuse, causes of addiction, relationship to criminal behavior and methods of control. (Not open to students who have taken Special Problems: Narcotics).

73.313 Organized Crime I (Course)

Organized crime in the United States; its impact on society; the need for an integrated response by people, government and business. (Not open to students who have taken Special Problems: Organized Crime)

73.314 Organized Crime II (Course)

Organized crime as a social subculture. Analysis of socio-economic and political aspects of organized crime, emphasis on internal controls and external relations with various political and economic sectors of society. *Prerequisite:* 73.313

73.315 White Collar and Commercial Crime (Course)

White collar and commercial crime in America; classification, economic and fiscal implications, enforcement problems, fraudulent association, bankruptcy fraud, monopoly and coercive competitive practices, illegal use of securities and credit cards. Focus on problems of theoretical criminology presented by white collar crime. *Prerequisite:* 73.221

73.320 Criminal Procedure and Evidence (Course)

Procedural aspects of criminal law; processes of enforcement, investigation, pre-trial procedure, trial procedure and sentencing, post-trial motions, appeals, reviews, and remedies; rules of evidence applicable in criminal cases. Focus on police practices emphasizing arrest, search and seizure, bail, preventive detention, interrogation, right to counsel, incompetency and the insanity defense. *Prerequisite:* 73.220

73.321 Evidence (Course)

An analysis of the rules of evidence applicable in criminal cases including: presumptions and inference; direct and circumstantial evidence; real evidence; testimonial knowledge and opinions evidence; character evidence; the hearsay rule and its exceptions; documentary evidence; confessions, admissions and the privilege against self-incrimination; illegally obtained evidence; witnesses and former testimony. *Prerequisites:* 73.220 and 73.320.

73.330 Institutional Treatment of the Offender (Course)

A systematic analysis of correctional processes in juvenile and adult institutions; admission and orientation programs, classification and treatment team planning, therapeutic community concepts, tier systems, contraband, treatment strategies, furloughs, work-release, pre-release planning, administrative transfers and disciplinary procedures. Special examination of the Kennedy Youth Center and the Narcotic Addict Rehabilitation Program at Danbury, Connecticut

73.331 Community Treatment of the Offender (Course)

Probation and parole supervision concepts, pre-release planning, caseload classification techniques, use of probation case-aides, community treatment centers, neighborhood treatment centers. Auxiliary services such as employment, mental health and vocational counselling. Innovative community projects for offenders such as pre-trial diversion projects, Project Build, the Offender Rehabilitation Project, Project Crossroads, etc.

73.340 Judicial Administration—Criminal (Course)

Study of rules of criminal procedure and evidence as they bear on responsibilities of court administrators. Constitutional and statutory bases of such rules. Management of criminal process to assure all constitutional rights. Administrative relationships of courts with agencies and individuals involved in criminal justice process: defendants, police and criminal investigation agencies, prosecutors and defense counsel, bail agencies, probation officers, correctional agencies. Grand jury procedures. Petit jury procedures. Protection of integrity of judicial process. Development of theory of management compatible with judicial institutions, review of management models from business and government.

73.341 Judicial Administration—Civil (Course)

Study of rules of civil procedure and evidence as they bear on responsibilities of court administrators. Constitutional and statutory bases of such rules. Problems peculiar to certain types of litigation: personal injury, probate, small claims, landlord and tenant. Protracted litigation. Devices for narrowing issues and expediting litigation. Alternatives to judicial process for dispute resolution. Judicial management problems: record keeping, calendar management, jury service. Administrative relationships of court to other agencies and to public. Development of theory of management compatible with judicial institutions, review of management models from business and government.

73.351 Individuals, Institutions and Society (Course)

Basic tools of social psychology and social psychiatry. Relationship of the individual to those institutions in which he is involved, including work and leisure, the community, and the larger society.

73.354 Contemporary Crime (Course)

Current criminological thought and related societal issues. The social system of crime; societal reactions to crime; major forms of deviation; concept of etiology (causation); the crime of punishment

73.401 The Concept of Justice (Course)

Study of philosophical approaches to the definition of justice. Review and contrast of natural law and political expediency definitions. Utilitarian approaches. Examination of difficulty of translating concepts of justice into concrete action in administrative contexts.

73.402 Non-Judicial Administration of Justice (Course)

Enforcement of private and public rights and duties by agencies in the non-judicial sector of government and by private agencies: social security agencies, welfare agencies, mediation and arbitration groups, housing agencies, rate-fixing authorities, utility commissions. Equality of treatment and due process problems in such agencies. Study of non-judicial techniques and alternatives in dispute-resolution.

74.410 Special Problems (Course)

Selected problems in the various aspects of the criminal justice system. Each offering will be identified by a subtitle. This course may be repeated for credit.

73.411 Problems in Forensic Science (Course)

A detailed examination of specific problem areas involving case studies of investigative techniques, practices and procedures with emphasis on scientific application thereto.

73.412 Police Role in Society (Course)

Consideration of the appropriate roles of police departments and individual police officers in a democratic society. History of the changing police role. Functions inherent in crime control and social service responsibilities. Police understanding of police role as manifested in recruiting, training, and organizational practices. Police as a governmental agency, their relationships to other governmental agencies, especially courts and correctional agencies. Police and the community: their impact on each other.

73.430 Correctional Administration (Course)

An analysis of basic organization and objectives of a correctional agency. Specific principles covering the areas of staff development, relationships of treatment, custodial and support staffs; institutional design, and management.

73.440 Data Processing in Judicial Administration (Course)

An introduction to the concepts of data organization and processing; their application to judicial administration; and a survey of the capabilities and limitations of computer technology in judicial administration and court management including large volume transactions, jury management, docketing, calendar management, assignment and legal research.

73.450 Prevention of Crime and Delinquency (Course)

The concept of prevention, programs of symptom detection, sources of data on high delinquency and criminality areas, community action projects as preventive services, and proposed programs, such as the Model Youth Services Bureau.

73.451 Poverty and the Administration of Justice (Course)

A historical analysis of the ways in which the administration of justice has affected the poor. One part of the course will deal with the Black man and the great influx of immigrants during the 18th, 19th and early 20th centuries. A second part of the course will study developments arising in the 1950s and continuing to the present. Discrimination in housing, welfare, education, employment and consumer practices as well as civil commitment practices will be examined.

73.452 Interpersonal Relations and Human Development (Course)

Processes of competition, cooperation, conflict, accommodation and assimilation, as well as the concept of self-development. Included will be an analysis of how people transmit their thoughts to other people. Sensitivity training exercises may constitute part of the course.

73.453 Civil Disorder (Course)

Close study of the Report of the National Advisory Commission on Civil Disorders. Historical review of civil disorders in the United States: the issues involved, the actions taken in response to the disorder, the ultimate resolutions of the issues. Special implications of contemporary disorders for the system for the administration of justice in the United States.

73.454 Violence and Justice in America (Course)

An analysis of violence and justice in America with emphasis on various ideologies and events that bring about or slacken violence such as social movements, depressions, war, and political repression.

73.455 Etiology of Crime (Course)

An analysis of the economic, political, social and psychological factors contributing to criminal deviance, including poverty, cultural deprivation and conflict, alcoholism and drug addiction, sexual deviation, social and political injustice, gambling and political corruption.

73.463 The Free Press and the Administration of Justice (Course)

Examination of the constitutional guarantee of freedom of the press as it pertains to special problems in the administration of justice. Free press and law enforcement, fair trial, correctional processes. Problems of administrative secrecy, national security, the right to privacy.

73.464 Problems of Corruption (Course)

Historical review of corruption and the administration of justice. Analysis of concepts of corruption, conditions for corruption. Prevention of corruption: Professional and administrative ethics.

73.480 Seminar in Contemporary Criminal Justice Problems (Course)

An analysis and consideration of major problems encountered in the administration of the criminal justice system.

73.491 Internship (Quarter-Course to Course)

To provide students with actual experience in the administration of justice through assignment to enforcement, judicial, or correctional agencies under the joint supervision of agency officials and university instructors

Advanced Courses

73.530 Clinical Criminology (3)

Clinical tools for the diagnosis and treatment of offenders by examining the nature of offenses and offenders, the process of growing up, the dynamics of maturity, and the techniques of problem solving. Analysis of essentials in institutional climate, personnel, structure and methods as they relate to acculturation of prisoners in a democratic or in a military setting, and examination of correctional administration, classification, casework, constructive activities, security and discipline as they promote such acculturation in an authoritarian agency.

73.531 Counseling and Guidance (3)

Survey of the basic principles and techniques of counseling as applied specifically to correctional work through case conferences, individual counseling, group discussion, group action and planned participation with special emphasis on the elements of lay counseling, types of counseling related to correctional work including educational, vocational, and marriage counseling.

73.540 Survey in Judicial Administration (3)

A survey course of judicial systems with particular stress on urban court problems. The course will focus with national perspective upon (1) a descriptive analysis of judicial systems and their legal, social and political environments, (2) an analysis and discussion of social, legal and political issues related to judicial systems, (3) a review of basic trends in this sector of government. Judicial officers will be invited to participate in discussions.

73.600 Graduate Survey in the Administration of Justice (3)

An in-depth survey of the criminal justice system of the United States.

73.601 Systems in the Administration of Justice (3)

Analysis of organizational working situations in the administration of justice. Emphasis will be given to the inter-relationships of objectives, structures, inter- and intra-group dynamics, social and economic changes and their effects upon personal and organizational growth.

73.602 Comprehensive Law Enforcement Planning (3)

Application of planning concepts to development of comprehensive law enforcement plans under the Omnibus Crime Control and Safe Streets Act of 1968. Integration of plans of police, judicial, and correctional agencies into comprehensive crime reduction plan. Identification and definition of objectives. Identification and comparison of alternative courses of action. Resource analysis. Cost-benefit analysis. Identification and quantification of outputs. Criteria for program evaluation. Use of models.

73.603 Community Control of Law Enforcement (3)

Research seminar to develop information on various means being used in the United States to assert and maintain community control over law enforcement agencies, particularly major urban police departments. Study of police review boards, civilian advisory councils, police-community relations programs. Police reaction to civilian review. Study of related problems of community control of other bodies of local government, such as school boards, street and park commissions, zoning boards, planning commissions. Public review of judicial performance.

73.610 The Police and the Political System (3)

An analysis of the police function as an instrument of public policy in the United States, the relationship of the police to the public and private agencies, constitutional and pragmatic limitations on law enforcement, problems of federalism police discretion and selective enforcement, minimum standards, community control, political feasibility; the relationship of the police function to social and economic policy; due process as a requirement for ordered liberty.

73.615 Comparative Police Systems (3)

A critical comparative study of different police systems in the United States with those of selected industrialized foreign countries including administration, organization, objectives, and principal functions. Analysis of the types and levels of controls over the police function and the relationships of the police to the people. Public and police perception of police role within various police systems.

73.616 Federal-State Relations in Law Enforcement (3)

Constitutional bases for distinction between state and federal law enforcement functions. Cooperation and conflict in subject-matter areas of shared enforcement responsibility. Comparative organization of state and federal enforcement agencies. Federal support activities, including enforcement, technical, and information services. Federal program assistance under the Omnibus Crime Control and Safe Streets Act of 1968.

73.620 Civil Liberties and the Criminal Justice System (3)

An intensive study of contemporary Supreme Court decisions interpreting constitutional limitations on criminal justice, legislation, practices, and procedure. Emphasis is placed on problems of reconciling and balancing individual interests of liberty and personality with social interest in general security and crime control.

73.621 Criminal Law and Police Administration (3)

A comprehensive consideration of selected problems in criminal law of special significance in law enforcement

73.635 Comparative Correctional Systems (3)

Current approaches in the control and treatment of juvenile and adult offenders in other countries. Special attention will be given to the Borstal System in England and to the Swedish System in the treatment of psychopathic offenders.

73.640 Behavioral Theory (3)

An analysis of the major theoretical and clinical aspects relating to personality function and development, emotional disorders and levels of treatment. *Prerequisite:* Abnormal Psychology or permission of instructor.

73.641 Interviewing and Individual Counseling (3)

Purpose and principles of effective interviewing, an analysis of individual problems in social functioning and the process of problem solving with clients. Emphasis will be placed upon learning to diagnose emotional blockings and in providing effective help through the counselling relationship.

73.642 Theory and Principles of Group Work (3)

An analysis of the major theoretical models for understanding group behavior, diagnosing group problems and techniques for effective intervention and counseling.

73.643 Group Work Practicum (3)

Students will participate in a small group workshop to examine their own behavior in groups under the direction of a professional group leader. *Prerequisite:* 73.642.

73.650 Theories of Prejudice and Discrimination (3)

An analysis of how society differentiates among people and how in fact people are different. The course will deal with questions of life styles, religion, race and ethnic background.

73.652 Sociology of Law (3)

Law as a social phenomenon and agency of social control. Analysis of problems of legal concepts, doctrine, and institutions.

73.680 Introduction to Social Research (3)

An introduction to social research methods as applied to the administration of justice. Emphasis is on the basic assumptions underlying social science research methods and the role of social research in the analysis, interpretation, and clarification of problems of the justice system. The course also deals with the design and execution of research projects, including analysis of the relationship between the researcher and those he studies. Introduction to scientific method in the development of social theory and the solution to social problems.

73.690 Independent Research Project (3-6)

Research on a topic agreed upon by the student and the supervising faculty member, and the preparation of an acceptable written report.

73.775 Seminar in Criminal Law and the Criminal Justice System (3-6)

Prerequisite: permission.

English Language Institute**ENGLISH AS A FOREIGN LANGUAGE****English Workshop I: Intensive Basic English**

A course in basic English for students with little or no knowledge of English. The main emphasis of the course is on oral English, and it includes intensive practice of English grammar and pronunciation. *Placement by examination.* Offered twice in the fall and spring semesters, and during summer sessions and intersession as announced.

English Workshop II: Intensive Intermediate English

This course is designed for intermediate students of English. It emphasizes on pronunciation and the more complex structures of English, as well as the development of basic reading and writing skills. *Placement by examination.* Offered twice in the fall and spring semesters, and during summer sessions and intersession as announced.

English Workshop III: Intensive High-Intermediate English

A semi-intensive course in English for more advanced students; equal emphasis on reading, writing, speaking, and listening. *Placement by examination.* Offered fall, spring, summer, and intersession as announced.

English Workshop IV: Semi-intensive Advanced English

A semi-intensive course in English for advanced students; emphasis on mastery of the pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed. *Placement by examination.* Offered fall, spring, summer, and intersession as announced.

74.100 Composition and Reading I (for Foreign Students) (Course)

Foreign students whose competence in English makes them eligible for college-level work are assigned to this section so that attention can be given to their special language problems. The emphasis in this course is on reading and writing. *Placement by examination.* Offered fall, spring, and summer.

74.101 Composition and Reading II (for Foreign Students) (Course)

A continuation of F74.100; emphasis is on library and research techniques. *Placement by examination.* Offered fall & spring.

Project Pride/A.U.

71.010 Language Skills Workshop (0)

The workshop will seek to provide its students with basic language arts skills, such as spelling, grammar, etc. Instruction will be individual and intensive.

71.100 Basics of Communications (Course)

Study of English composition geared to the exploration of the self as a community of individuals who are part of the modern world. Course emphasizes grammar and composition.

71.102 Methods of Communications I (Course)

Purpose of this course is to stimulate the use of language as a means of self-expression and communication. Books and approaches are coordinated with Fabric of Social Structure I and II. Stresses written communication.

71.103 Methods of Communications II (Course)

Purpose of this course is to stimulate the use of language as a means of self-expression and communication. Books and approaches are coordinated with Fabric of Social Structure I and II. Stresses oral communication.

71.105 Mathematics Skills (Half-course)

Purpose of this course is to provide necessary fundamentals of math to allow the student to deal with simple math functions encountered in pursuing related fields: economics, business administration, and accounting.

71.110 Fabric of Social Structure I (Course)

Ecology of urban environment. Relationship between government, business and economic resources is stressed. Topics such as black capitalism, politics, and ghetto economics are discussed.

71.111 Fabric of Social Structure II (Course)

Ecology of urban environment. Covers sociology, economics, and political psychology.

71.201 Black Cultural Heritage (Course)

Emphasizes the historical, literary, musical, artistic, and scientific contributions of Black Americans. Open to a limited number of American University students.

71.202 Social Dynamics (Course)

Stress on sociology of black-white community with reference to social movements and institutions, urban problems, law enforcement, and community development.

71.210 Accounting Principles I (Half-course)

Basic techniques of record keeping and accounting

71.211 Salesmanship (Half-course)

Examines techniques of salesmanship, marketing as it relates to inner-city economic development and the creation of a relevant and effective sales force. Focus upon the many facets of sales and salesmanship as they relate to the psycho-social development of inner-city experience.

71.212 Accounting Principles II (Half-course)

Continuation of 71.210, Accounting Principles I.

71.220 The Educational Institution (Course)

Awareness of existing structures of education in university, public school, parochial, private, etc., to analyze its implications for society and its inhabitants.

71.221 Law, Repression and the Community (Course)

Purpose is to make the student aware of the institution of "Badge" power within the community Police department as an institution and the operations of police.

71.222 Community Organization (Course)

Techniques and principles of community organization and practical application as it relates to the minority community.

71.230 Consumer Education (Course)

Basic knowledge of buying, selling, and consumer principles. Practical application stressed.

71.231 Lay Advocacy (Course)

Designed to meet general legal needs of inner-city residents. Basic purposes: to make the student aware of his basic inalienable rights under the Constitution and to enable him to use the law as a tool and a weapon.

71.232 Principles of Counseling (Course)

Geared towards methods of counseling inner-city males between the ages of 16 and 21. Emphasis on various problems encountered by public school students.

71.233 Techniques of Management (Course)

Examines strategies of management in relation to community organizations.

71.396 Pride/A.U. Institute (Half-course)

Intensive study of selected problems in relation to the inner-city. Offered only during intersession; subject matter changes yearly.

Comparative Banking—(See Business)

Computer Systems—(See Continuing Education)

Construction Management—(See Business Administration)

Contemporary International Relations—(See International Studies)

Correctional Administration—(See Continuing Education)

Counseling, Educational—(See Education)

Counseling Psychology—(See Psychology)

Data Processing Systems—(See Continuing Education)

Design—(See Art)

Diplomacy and Foreign Policy Formation—(See International Studies)

Earth Sciences—(See Chemistry)

Economics

Undergraduate Courses

19.100 Introduction to Economics (Course)

Survey of basic economic issues and policy. Institutional framework. National income, employment, inflation, and growth. Business cycles and national economic policy. Resources and resource allocation, poverty, public finance. Every semester.

19.110 Selected Topics in Economics (Course)

Application of economic principles to topics in international trade and finance, national economic policy, theory of the firm. Subject matter and prerequisites vary. Every semester.

19.300 Price Theory and Its History (Course)

Relative prices of commodities and productive services under perfect and imperfect competition. Theory of the firm and the theory of consumer demand. History of price theory through the writing of Smith, Ricardo, Marshall, Walras, to date. *Prerequisite:* 19.100. Every semester.

19.301 Income Theory and Its History (Course)

Basic concepts and theory of income, employment and economic growth. History of income theory traced through Ricardo, Wicksell, Keynes, to date. *Prerequisite:* 19.100. Every semester.

19.302 Alternative Economic Theories and Institutions (Course)

Analysis of the theories of Karl Marx, Thorstein Veblen, the Historical School, the Institutionals, and modern dissenters from orthodox economics. Also an analysis of non-capitalist institutions and economies. *Prerequisite:* 19.100. Fall semester.

19.304 Labor Economics: Poverty and Human Resources (Course)

Analysis of the causes and consequences of poverty in the American economy. The meaning and measurement of poverty: economics of inequality; income distribution; causes of poverty, including low wages, low incomes, unemployment, economics of racism; economics of education, policies to alleviate poverty; manpower, education; income maintenance, income redistribution. *Prerequisite:* 19.100. Every semester.

19.305 Introduction to Quantitative Economics (Course)

Selected topics from analytical geometry, calculus, linear algebra, statistics, computers, and their application to problems in economic research and analysis. *Prerequisites:* 41.100 and 19.100 or equivalent. Fall semester.

19.306 Money and Banking (Course)

Role of money and credit in the economy. Structure and operations of commercial banks. The Federal Reserve System and processes and instruments of monetary policy. Nonbanking financial institutions and the structure of financial markets. Elements of monetary theory. The "flow of funds" and its use in monetary analysis. *Prerequisite:* 19.100. Every semester.

19.307 Economic Development (Course)

Theories of economic development (classical, Marxian, and modern). Simple growth models. Development strategies in agriculture and industry, population problems and development planning. *Prerequisite:* 19.100. Every semester.

19.308 History of Economic Development (Course)

Investigation of the economic development process using Europe and the United States as case studies. Emphasis on economic theory to illuminate the process of historical development. *Prerequisite:* 19.100. Spring semester.

19.309 Public Economics (Course)

Introduction to the theory of taxation, public expenditure and fiscal policy. Comparative survey of fiscal institutions in the U.S. and abroad. Government approaches to income redistribution and problems of poverty: negative income tax, family allowances, etc. *Prerequisite:* 19.100. Every year.

19.310 Introduction to Econometrics (Course)

Theory of economic statistics and statistical techniques. Emphasis upon applying statistical models to economic data. Introduction to probability, significance testing, elements of correlation, regression analysis, and testing hypotheses. *Prerequisite:* 19.100 and 41.100 or equivalent. Spring semester.

19.311 International Economics (Course)

In the fall semester the course is for non-economics majors. The class is less theoretical than spring semester and more concerned with current trends and policy issues. The spring semester course is designed for economics majors only. It stresses the theory of international trade, economic integration, foreign investment and capital movements, and international monetary affairs. *Prerequisite:* 19.100. Every semester.

19.314 Junior-Senior (Course)

Designed to encourage all economics majors to do independent research during their junior and senior year. Topics will be chosen by professors and students involved. *Prerequisite:* Junior or senior standing in economics. Every year.

19.315 Urban Political Economy (Course)

Economic functions of cities, pollution, metropolitan decentralization, urban growth and development, transportation, urban form and structure, housing markets and discrimination, land-use patterns, urban renewal, local government finance, and poverty *Prerequisite*: 19 100 Every semester

19.318 Asian Economic Problems (Course)

Lecture and discussion on economic problems, especially those related to modernization, in contemporary East, Southeast, and South Asia *Prerequisite*: 19 100 Offered fall semester, odd-numbered years.

19.319 Methodology of the Social Sciences (Course)

Philosophy and methodology of the social sciences with emphasis on economics. Historical and institutional methodologies *Prerequisite*: 19 100 Every year

19.390 Readings in Economics**19.490 Independent Project in Economics****Advanced Courses****GENERAL ECONOMIC THEORY**

Undergraduate students enrolled in .500 level courses receive one course unit.

(500-level courses are open to graduate students and qualified advanced undergraduates. 700-level are open only to graduate students).

19.500 Price Theory (3)

Theory of resource allocation and the price system. Theory of demand, production, and distribution. Market structure and performance. *Prerequisite*: 19.300 or permission. Every semester

19.501 Income Theory I (3)

The Keynesian model of income determination. Detailed study of consumption, investment and interest rate theories. The Keynesian and classical systems compared *Prerequisite*: 19.301 or permission Every semester

19.502 Income Theory II (3)

Macroeconomic models. Theories of inflation. Monetary and fiscal theories. Theories of growth. *Prerequisite*: 19 501. Spring semester.

19.703 Microeconomic Analysis (3)

The theory of demand. The theory of production and distribution. The theory of supply *Prerequisite*: permission of the instructor. Offered Fall semester

19.770 Seminar in Economic Theory Price (3)

Market structure and performance. Capital theory and theory of economic growth. Welfare economics. *Prerequisite*: 19 500 or 19.703 Spring semester.

19.771 Seminar in Economic Theory: Income (3)

Advanced analysis of problems of income determination and economic growth. Discussion and supervised research. *Prerequisite*: permission of instructor

19.772 Seminar in Economic Theory: Welfare (3)

Advanced analysis of problems in welfare economics. Discussion and supervised research. *Prerequisite*: permission of instructor

QUANTITATIVE ECONOMICS

Undergraduate students enrolled in .500 level courses receive one course unit

19.521 Mathematical Economic Analysis (3)

Mathematical analysis of economic theory and problems. Linear programming, input-output, Lagrange multipliers, difference and differential equations. *Prerequisite*: 41 - 222 or permission of the instructor. Fall semester

19.522 Econometrics I (3)

Theory of economic statistics and development of statistical models to be applied to economic data. Probability theory, statistical criteria, hypothesis testing, correlation and regression analysis, analysis of variance, emphasis will be upon application to economic data. *Prerequisite*: 1 course in undergraduate statistics.

19.523 Econometrics II (3)

Review of regression analysis and statistics, testing of hypotheses: a rudimentary treatment of the problem of aggregation, identification, multicollinearity and serial correlation; sources of economic data, an examination of computers in economics. *Prerequisite*: 19 521 and 19 522 or 2 courses in undergraduate statistics Spring semester

19.785 Seminar in Mathematical Economics (3)

Application of mathematical methods to economics. Advanced study of static and dynamic models. *Prerequisites*: 19 521, 41 222 and 41 223 or permission of the instructor

19.786 Seminar in Econometrics (3)

Advanced quantitative analysis. Construction of stochastic economic models. Problems of specification, estimation, verification and prediction. *Prerequisite*: 19 523

MONEY, CREDIT, AND BANKING

Undergraduate students enrolled in .500 level courses receive one course unit

19.525 International Finance and Capital Movements (3)

Balance of payments accounts, modern theories concerning interrelations between price level, balance of payments, and capital movements. Foreign exchange markets, foreign investments and capital movements. International financial organizations. International monetary system and its reform. *Prerequisites*: 19.306 and 19.311. Offered fall semester of alternate years.

19.530 Central Banking (3)

Comparative institutional and policy analysis of central banks. Relations to government and formulation of monetary policy. Quantitative and qualitative instruments. Monetary policy and economic growth in advanced countries. Role of central banks in developing countries. Central banks and international monetary institutions and arrangements. (offered odd years beginning 1971). *Prerequisites*: 19.301, 19.306.

19.531 Financial Markets (3)

Comparative analysis of financial markets in advanced and developing countries. Formative factors, nature and functions. Sectors, institutions and instruments. Sources and uses of funds and the influence of official and international policies and operations. Role in development programs and their behavior under inflation and stabilization conditions. (offered even years beginning 1970). *Prerequisites:* 19.301 and 19.306.

19.532 Monetary Theory and Policy (3)

Evolution of theories of money and interest in their relation to saving, investment and income. Concepts of time and liquidity preference, role of velocity in income determination. Relation of theory to market processes and monetary policies. Role of credit policy in the economy. *Prerequisites:* 19.500, 19.501, and 19.531. Spring semester. May not be taken by students who already have taken 19.731 for credit.

19.780 Seminar in Monetary Economics (3)

Economic and monetary trends and their interrelationship. Federal Reserve policies and government financial operations and their effects on money and capital markets. Review of current economic indicators and monetary and financial statistics. Discussion and supervised research. *Prerequisite:* 19.532 or permission of the instructor.

ECONOMIC POLICY

Undergraduate students enrolled in .500 level courses receive one course unit.

19.541 Public Economics I (3)

Theory of public expenditure. Trends in size of the public sector in the U.S. and abroad. Introduction to budgeting. Theory and practice of fiscal policy for stabilization and growth. *Prerequisites:* 19.311, 19.301 and 19.306.

19.542 Public Economics II (3)

Introduction to the theory of taxation. Analysis of income, consumption, wealth and other taxes in the U.S. and abroad. Public expenditure programs for growth and income maintenance. Public debt. Problems of fiscal federalism, etc. *Prerequisite:* 19.541.

19.544 Survey of Urban Political Economy (3)

Economic functions of cities, pollution, metropolitan decentralization, urban growth and development, transportation, urban morphology, housing markets and discrimination, land-use patterns, urban renewal, and local government finance. *Prerequisite:* 19.500 or permission of instructor. Fall semester.

19.783 Seminar in National Economic Policy (3)

Economic aspects of leading problems in public policy. Formulation of national economic policy: planning principles and data bases. Discussion and supervised research. *Prerequisite:* open to advanced Ph.D. students and as terminal seminar for M.A. candidates, others by permission of the instructor.

19.787 Seminar in Public Economics (3)

Role of taxation and government expenditure. Optimal tax structure. Optimal public expenditure. Role of fiscal policy in stabilization and growth. *Prerequisites:* 19.541 and 19.542 or permission of the instructor.

19.789 Seminar in Urban Political Economy (3)

Selected advanced topics. Discussion and supervised research. *Prerequisite:* 19.544. Spring semester.

INTERNATIONAL ECONOMICS

Undergraduate students enrolled in .500 level courses receive one course unit.

19.551 International Economic Theory (3)

Theory of international specialization, world trade and development, commercial policy, balance of payments. *Prerequisites:* 19.300 and 19.301. Fall semester.

19.553 Economic Problems of Southern Asia: Survey (3)

Economic features, problems and policies especially as they relate to the modernization process in India, Pakistan, Ceylon, Burma, Thailand, Cambodia, Laos, Viet-Nam, Malaysia, Singapore, Indonesia, and the Philippines. *Prerequisite:* Permission of the instructor. Fall semester, even numbered years.

19.554 Economic Problems of Southern Asia: Indonesia, Malaysia, and Singapore. (3)

Analysis, comparisons and contrasts as related to modernization. Recommended for students wishing intensive study in economic development, or in the countries concerned. *Prerequisite:* permission. Spring semester, odd-numbered years.

19.555 Economic Problems of Latin America (3)

Economic geography, population, government organization, public finance and monetary policy, foreign trade, balance of payments, foreign investments, prospects of economic advancement. *Prerequisite:* 19.307. Fall semester.

19.559 Patterns and Problems of Economic Development in Asia (3)

Economic development, its history, trends and problems in Japan, China, and formerly colonized areas, especially India, Pakistan and Indonesia. Lessons in the Japanese experience, socialized countries, and open economies. *Prerequisite:* Permission of the instructor. Spring semester, even-numbered years.

19.784 Seminar in International Trade and Finance (3)

Beginning with the international economic problems of low-income countries, major current problems of the international economy including trade problems and policies, foreign aid, foreign investment, economic integration, the U.S. balance of payments and the international monetary system. *Prerequisite:* 19.551 or permission of the instructor. Spring semester.

ECONOMIC DEVELOPMENT

Undergraduate students enrolled in .500 level courses receive one course unit.

19.560 Economic Development (3)

Patterns, theories and models of economic development of advanced and underdeveloped economies. Some historical theories and approaches to economics development. Theoretical concepts and issues in development planning. *Prerequisite:* permission of the instructor. Fall semester.

19.561 Development Planning (3)

Macro and micro aspects of development planning. Plan formulation and implementation. Theory compared with experience. Developed, less developed, socialist, mixed-economy countries in Africa, Asia, Europe and the Americas. *Prerequisite:* permission of the instructor.

19.788 Seminar in Economic Development (3)

Trends in living standards, economic planning programs, capital formation, industrial-agricultural techniques, monetary and fiscal structures, income distribution, foreign trade of underdeveloped countries. *Prerequisites:* 19.307 or 19.561 Spring semester.

LABOR ECONOMICS

Undergraduate students enrolled in .500 level courses receive one course unit

19.571 Labor Economics: Theory (3)

Theories used to explain the emergence of labor organization, history of the development of labor organization, theories of exploitation and alienation; contemporary theories of wages, employment and prices; collective bargaining in a comparative context; the impact of collective bargaining on the American economy; theories and empirical studies of wage differentials. *Prerequisites:* 19.300 and 19.301. Fall semester.

19.790 Seminar in Current Labor Problems: Poverty and Human Resources (3)

Causes and consequences of poverty in the American economy. Meaning and measurement of poverty; economics of inequality; income distribution; causes of poverty including low wages, low incomes, unemployment; economics of racism; economics of education; policies to alleviate poverty: manpower, education; income maintenance; income redistribution. *Prerequisites:* 19.300 and 19.301. Spring semester.

HISTORY OF ECONOMIC THOUGHT

Undergraduate students enrolled in .500 level courses receive one course unit.

19.504 Economic Thought (3)

Major figures in the history of economic thought in terms of their social and economic thought and the tools of analysis they created. *Prerequisites:* 19.300, 19.301 Fall semester.

19.704 Seminar in Economic Thought (3)

Special topics in the history of economic thought; emphasis on problems of methodology and philosophy. *Prerequisite:* 19.504 Spring semester.

HISTORY OF ECONOMIC DEVELOPMENT

19.507 Economics of American Development (3)

Statistical and analytical investigation of long-run behavior of national income, population, savings, investment, consumption, labor productivity, and other factors affecting economic growth in the U.S. Concepts of dual economy and balanced growth. *Prerequisite:* permission of the instructor. Fall semester.

19.508 European Economic Development (3)

Origins and development of capitalism in the western world; emphasis on Britain. Emphasis placed on economic theory to illuminate the process of historical development. *Prerequisite:* permission of the instructor. Spring semester.

COMPARATIVE ECONOMIC SYSTEMS

Undergraduate students enrolled in .500 level courses receive one course unit

19.512 Theory of Comparative Economic Organization and Institutions (3)

Integrates economic theory and institutional analysis in evaluating comparative economic organization and institutions. Criteria for evaluating economic performance stressed. Lengthy descriptions of institutions omitted. *Prerequisites:* 19.300 and 19.301.

19.552 Structure and Operation of the Soviet Economy (3)

Rate of economic growth, changing structure of the economy with emphasis on period since 1928. Conditioning factors. Planning techniques and procedures. International economic relations. *Prerequisite:* 19.100.

19.791 Seminar in Comparative Economic Systems (3)

Advanced analysis of problems in comparative economics. Discussion and supervised research. *Prerequisite:* 19.512 or permission.

19.590 Reading Courses (3)

For approved courses taken on individual basis. *Prerequisites:* permission by departmental instructor.

19.690 Research Projects (3)

For approved research projects in lieu of or addition to seminars (applicable to M.A. requirements). *Prerequisite:* permission by departmental instructor.

19.797 Masters Thesis Seminar (3-6)

19.799 Doctoral Dissertation Seminar (6-24)

Education

21.250 Mathematics for Elementary School Teachers (Course)

Provides pre-service elementary school teachers with background for teaching mathematics. *Prerequisite:* 41.100 or equivalent. Fall, spring, summer.

21.300 Foundations of Education: Social and Historical Bases: Philosophical and Psychological Principles (Course-and-half)

History of education; educational sociology, psychological, sociological, and physiological factors of human growth, development, and principles of learning. Elementary and early childhood education majors participate in a full day student aide experience (8:30-2:30) once a week in an elementary school situation in addition to regular class meetings (one 75-minute session and one activities session of 2 hours and 40 minutes per week). Secondary education students participate in one 3-hour block of student aide experience per week in a secondary school situation. Students *must* provide, their own transportation to their student aide field experience assignments. This course is a prerequisite to all other undergraduate courses in the department. *Prerequisites:* 57.200, sophomore standing or above, and a grade point average of 1.30. Fall, spring, summer.

21.320 Psychology of Education (Course)

Psychological problems encountered in education. Nature and control of learning, theories of motivation, development of skills and knowledge; creative learning and critical thinking. *Prerequisite:* 57.200. Not offered to students who have taken 21.300.

21.340 Methods and Materials in Secondary Education: General and Special: English, Social Studies, Science, Mathematics, and Foreign Languages (Course)

General methods, materials and applications to special subject fields. Laboratory experiences in the university classroom and in area secondary schools. Students provide their own transportation to the field assignments. To be taken concurrently with 21.445 Student Teaching. *Prerequisites:* 21.300 or equivalent, a grade point average of 1.50, and admission to a program of teacher education. Fall and spring.

21.342 Methods of Teaching in Secondary Schools: General (Course)

General teaching methods; some opportunity to apply principles to certain specialized subject-matter fields. Laboratory experiences in secondary schools in the Washington area and in use of educational resources. Students provide their own transportation to field experience assignments. *Prerequisites:* 21.300 or equivalent and a grade point average of 1.5. Offered only off-campus. Not offered to students who have had 21.340.

21.345 Children's Literature (Course)

Classic and contemporary prose and poetry, suited to children's interests and abilities. Related authors and illustrators, and history of such literature. Techniques in guiding children's reading including presentation of books, story-telling, and choral reading. Fall, spring, summer.

21.350 Methods and Materials in Early Childhood and Elementary Education: General and Special: Reading, Language Arts, Mathematics, Social Studies, and Natural Sciences (Double course and half)

Materials and methods for use in teaching elementary school subjects. Laboratory experiences in university classroom, in area elementary schools, and in use of other educational resources. Students provide their own transportation to the field experience assignments. *Prerequisites:* 21.300 or equivalent, a grade point average of 1.5, and admission to a program of teacher education. Fall, spring, summer.

21.390 Readings in Education

21.427 Inner-City Education (Course)

Individual involvement in community action programs. Weekly seminar and three hours of participation in the field. University-wide endeavor for students to explore own area of concern. *Prerequisite:* interview with instructor, Roper Hall. Fall, spring, summer.

21.440 The Teacher and Educational Administration (Course)

Administrative duties and relations of the teacher with reference to guidance, curriculum and financial responsi-

bilities. Consideration of school work involving cooperation between or among teachers, supervisors and administrative officers. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalents.

21.444 Student Teaching: Early Childhood and Elementary (Triple or quadruple course)

Observation, participation, and teaching in grades K through 6. Conferences arranged with university supervisor; seminars at frequent intervals. Four course units (15 weeks) of student teaching required for elementary education majors. Three course units (12 weeks) of student teaching may be taken by those with a bachelor's degree doing their student teaching for certification purposes only. Students provide their own transportation to the field experience assignments. *Prerequisites:* senior status, 21.300 and 21.350 or the equivalents; a grade point average of 1.5; and admission to a program of teacher education. Fall and spring.

21.445 Student Teaching: Secondary Schools (Double and a half triple or quadruple course)

Observation, participation, and teaching in grades 7 through 12. Conferences with university supervisor; seminars at frequent intervals. Students provide their own transportation to student teaching assignment. Four course units require 15 weeks of student teaching and may be taken only by those who have previously completed 21.340 or equivalent. 2 1/2 course units require 9 weeks of student teaching and 3 course units require 12 weeks of student teaching and either is to be taken concurrently with 21.340 or equivalent. *Prerequisites:* senior status; 21.300 and 21.340 or equivalents; a grade point average of 1.5 and admission to a program of teacher education.

21.490 Independent Project in Education

Advanced Courses

Undergraduate students enrolled in 500 level courses receive one course unit. Undergraduates are not eligible to enroll in 500-600-700 level courses without departmental permission.

CORE COURSES IN EDUCATION

21.510 Philosophy of Education (3)

Examination of the thought of leading philosophers on education: Plato, Augustine, Locke, Dewey, etc., and of contemporary schools in philosophy of education such as existentialism and analytic philosophy. Required of all candidates for master's degrees and of all doctoral candidates who have not had a graduate level course in philosophy of education. Fall, spring, summer.

21.520 Advanced Psychology of Education (3)

Psychological principles and research having special relevance to education; including a consideration of motivation, attitudes, mental abilities, and the psychology of school subjects. Required of all students taking a master's or doctoral degree program. *Prerequisites:* 21.300 or 21.320. Fall, spring, summer.

21.590 Readings in Education

21.610 Philosophy of Education: Advanced (3)

Seminar open only to candidates for graduate degrees. Students are invited to write papers on topics of contemporary interest in philosophy of education. Required of all doctoral candidates, who will be given preference in registration. *Prerequisites:* 21.510 or equivalent, and permission of the instructor. Fall and spring.

21.690 Independent Project in Education**21.790 Educational Research (3)**

Fundamentals, methodology, and materials for educational research. Required of all students. *Prerequisites:* 21.525 or equivalent, admission to graduate degree program in education, and permission of the department.

HISTORICAL FOUNDATIONS OF EDUCATION

Undergraduates enrolled in .500 level courses receive one course unit. Graduate students enrolled in .500 level courses receive three credits.

21.511 History of Education in Western Culture (3)

Consideration of educational ideas and institutions in Greco-Roman culture, the Christian middle ages, the Renaissance, and the Atlantic nations since 1789; with emphasis on intellectual, social, religious, economic, and political factors shaping educational development. Fall.

21.512 History of Education in the United States (3)

European inheritance in colonial education; development of American educational ideas and institutions during the nineteenth century, the progressive epoch, and post-progressive period. emphasis on intellectual, social, religious, economic, and political factors shaping American education. Spring.

21.613 History of Higher Education in the United States (3)

European universities in the middle ages, English reformation, and nineteenth century. American colleges and universities beginning with Harvard College, but concentrating on the history of American higher education since 1869. *Prerequisite:* 21.512. Summer.

PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

Undergraduate students enrolled in .500 level courses receive one course unit.

21.520 Advanced Psychology of Education (3)**21.521 Mental Health in Schools (3)**

Development of wholesome relationships involving administrators, teachers, pupils, and other educational personnel. Some phases of the daily work of the teacher in the area of good mental hygiene are considered. Fall, spring, summer.

21.522 Evaluation of Student Progress (3)

Materials and methods for use in evaluating student's progress, especially at the elementary and secondary school levels. Required of most students working on graduate degree programs in education. *Prerequisite:* one course in statistics. Fall, spring, summer.

21.622 Developmental Psychology (3)

Psychological and physiological aspects of growth and development from early childhood to adolescence. Spring.

21.623 Learning Theories in Education (3)

Theories of learning developed by psychologists. Selected research in human learning and principles of learning process. *Prerequisite:* 21.520. Spring.

21.625 Educational Statistics II (3)

Further application of analysis of variance, multiple correlation, analysis of covariance, non-parametric techniques, discriminant analysis. *Prerequisites:* 21.525 or a basic statistics course at the graduate level, and permission of instructor. Spring, summer.

EDUCATIONAL ADMINISTRATION

Undergraduate students enrolled in .500 level courses receive one course unit.

21.531 School Administration (3)

Helps prospective elementary and secondary school administrators acquire better knowledge and understanding of administrative principles, concepts and practices used in the schools. *Prerequisites:* 21.300, 21.350, and teaching experience. Fall, summer.

21.632 Problems of School Management (3)

Problem approach to the study of internal school management, administrative problems related to pupil and teacher personnel. *Prerequisite:* 21.531 or equivalent. Spring.

21.633 Financial and Business Administration for Schools (3)

School budgets, bonds, and taxes. Selecting, buying and distributing supplies and equipment. Accounting systems for finances and material. Other business aspects of education. *Prerequisite:* 21.531 or equivalent. Summer.

21.634 Essentials of School Law (3)

Laws governing education in the United States, with special reference to the District of Columbia, Maryland, and Virginia. Spring.

SPECIAL EDUCATION

Undergraduate students enrolled in .500 level courses receive one course unit.

21.541 Special Education for Exceptional Children (3)

Characteristics of exceptional children and of the problems in providing education programs to meet their needs. *Prerequisites:* 21.300 and 21.340 or 21.350 or equivalent. Fall.

21.542 Special Education for Retarded Pupils (3)

Class work and group activities for retarded children in public and private schools; emphasizes methods, materials, and objectives. *Prerequisites:* 21.300 and 21.340 or 21.350 or equivalent. Spring.

21.543 Special Education for Gifted Pupils (3)

Class work, group, and individual activities for gifted children in elementary and secondary schools; emphasis on methods, materials, and objectives. *Prerequisites:* 21.300 and 21.340 or 21.350 or equivalent. Spring.

21.644 Diagnosing and Correction of Learning Disabilities (3)

Diagnosing general and specific learning disabilities. Developmental and remedial techniques for correction of learning disabilities. Clinical experience. *Prerequisites:* 21.520, 57.525, and permission of instructor. Summer.

21.710 Seminar in Teaching: Learning Disabilities (3)

Fall, spring.

31.631 See "Institutes," page 234.

21.624 The School and Modern Social Problems (3)

Social basis of curriculum. Special reference to pupil needs. Current developments and methods of adapting the school to society. Summer.

21.525 Educational Statistics I (3)

Measures of central tendency and variability, probability and sampling, correlation, tests of significance. Chi Square, analysis of variance. Fall, summer.

SCHOOL COUNSELING

Undergraduate students enrolled in .500 level courses receive one course unit.

21.551 Philosophy and Practices in Guidance (3)

An overview of the nature of guidance and counseling programs. A general investigation into the nature of counseling, theories and techniques of counseling; into education and vocational information and guidance services; into the testing and diagnostic aspects of guidance and counseling programs, and into legal and ethical issues of guidance and counseling. Students carry on basic interviewing sessions with one another. This course is a prerequisite to all other courses in the school counseling program. *Prerequisites:* Admission into a graduate degree program, one course in child or adolescent psychology; one course in personality theory recommended. Fall, spring, summer.

21.552 Analysis of the Individual for Counseling (3)

Pupil appraisal methods, data and problems. Special attention given to personality and intelligence test interpretation. *Prerequisites:* 21.551 and graduate admission into a program in school counseling. Fall, spring.

21.553 Techniques of Counseling (3)

Counseling theories and counseling techniques. Consider contemporary theories and methods of counseling; practice in interviewing, counseling, and writing case reports. *Prerequisites:* 21.551 and admission into a graduate degree program in school counseling. Fall, spring, summer.

21.554 Vocational Analysis, Information and Placement (3)

Administration and interpretation of vocational tests; methods and techniques of preparing and presenting occupational information; research and theories of vocational choice; theories and practices in placement. *Prerequisites:* 21.551 and admission into a graduate degree program in school counseling. Fall, spring.

21.655 Group Counseling and Guidance (3)

Experimental or T-group (laboratory) approach to group counseling and guidance principles, techniques, and methods. Students become the group and experience participant as well as leadership roles. Combination of group dynamics and encounter techniques explored in atmosphere in which the group accepts responsibility for itself. *Prerequisites:* 21.551, admission to a graduate degree program in school counseling, and permission of instructor. Summer.

21.656 Seminar: Psychological Evaluation (3)

Descriptive and practical use of clinical tests. Considers problems and techniques of psychotherapy. *Prerequisites:* 21.551 and admission into a graduate degree program in school counseling.

21.659 Practicum in Counseling (3-6)

Practicum for advanced students in counseling. 250 clock hours of experience per 3 credits. Under close supervision students will perform intake interviews, counsel with students, prepare case reports or work directly in a specific phase of student personnel services. Research experiences included in this practicum. Students must make application for a fall semester practicum by July 1, and for a spring semester practicum by November 15. *Prerequisites:* 21.551, 21.552, 21.553, 21.554, and permission. Fall, spring.

21.662 Organization and Administration of Guidance Services (3)

See course description under Education: Student Personnel Services. Summer.

21.622 Developmental Psychology (3)

See course description under Education: Psychological Foundations of Education page 207. Spring.

31.565 Institute: Counseling the Disadvantaged (3)

See course description under Institutes, page 234.

STUDENT PERSONNEL SERVICES IN HIGHER EDUCATION

Undergraduates enrolled in .500 level courses receive one course unit.

21.661 Student Personnel Services in Higher Education (3)

Philosophical, psychological, and sociological bases for student personnel services. Emphasis on program, staff, budget, housing, and activities in student personnel services in higher education. Fall, spring, summer.

21.662 Organization and Administration of Guidance Services (3)

Principles, procedures, and practices in organization and administration of guidance services. Special attention to selecting staff, in-service training of staff, organizational patterns, ways of initiating a guidance program, and means of evaluating the program. Summer.

21.663 The Community College (3)

The community college in the United States. Attention focused on organizational patterns, diversity of function, student and faculty, and current problems of the two-year institution. *Prerequisite:* 21.561. Fall, spring, summer.

21.664 Principles of College Teaching (3)

Analytical study of teaching on the college level. Consideration of instructional methods as they relate to research and psychological bases. Use and effectiveness of various teaching media is examined. Fall, spring.

21.665 Organization and Administration in Higher Education (3)

Theory and practice of organization and administration in higher education. Provides prospective administrators with an understanding of governance in academic institutions through a study of the nature of organization, administrative processes, and administrative practices. Emphasis is upon theoretical formulations as well as administrative action. Incumbent administrators will also find it valuable as a basis for providing more effective leadership in present positions. Fall.

21.666 Educational Materials and Techniques (3-6)

Workshop course covering principles, methods, curriculum construction, administration, guidance, testing, and student personnel services.

21.765 Seminar in Education: Student Personnel Services in Higher Education (3)

Critique of issues and problems in contemporary programs of student personnel services. Fall, spring

21.769 Internship in Student Personnel Services in Higher Education (3-6)

For advanced students in student personnel services in higher education. Students are assigned to an area or areas of a program of student personnel services for exploratory administrative case and research experience. *Prerequisites:* 21.561, 21.662, 21.663, 21.765, and departmental permission. Fall, spring, summer.

SUPERVISION AND CURRICULUM DEVELOPMENT (General)

Undergraduates enrolled in .500 level courses receive one course unit.

21.583 Curriculum Construction (3)

Psychological, cultural, and educational bases of elementary and secondary school curriculum and higher education. Practice in construction of curriculum materials. *Prerequisites:* 21.300 and 21.340 or the equivalents. Fall or summer.

21.682 School Supervision (3)

For prospective and in-service supervisors for elementary and secondary schools. Purposes and techniques of supervision. *Prerequisites:* Qualification for a teacher's certificate and/or teaching experience. Spring

21.683 Supervision of Student Teachers (3)

Guidance for supervising teachers and others in work with student teachers. *Prerequisites:* Qualifications for a teacher's certificate, and teaching experience. Summer.

SCIENCE CURRICULUM

Undergraduate students enrolled in .500 level courses receive one course unit.

21.581 Physical Sciences for Elementary School Teachers (3)

Recent findings in physics and chemistry, with special reference to science knowledge expected on the part of the elementary school teachers. Fall and summer.

21.582 Biological and Geological Sciences for Elementary School Teachers (3)

Recent findings in biology and geology with special reference to science knowledge expected of elementary school teachers. Spring

READING CURRICULUM

Undergraduate students enrolled in .500 level courses receive one course unit.

21.571 Foundations of Reading Instruction (3)

Broad considerations underlying the teaching of reading with special emphasis on reading disability and the problems of the retarded reader. *Prerequisite:* 21.300 or equivalent. Fall, spring.

21.572 Methods of Teaching Developmental Reading (3)

Reading process seen as developmental pattern associated with individual growth and enlarging human experience. *Prerequisite:* 21.571 or equivalent. Fall, spring

21.673 The Diagnosis of Reading Disability (3)

Diagnosing causes of reading disability and prescribing proper treatment. Practicum work with children who exhibit reading disability. *Prerequisites:* 21.520, 21.571, and permission of instructor. Summer.

INSTITUTES

Undergraduate students enrolled in .500 level courses receive one course unit.

31.565 Institute: Counseling the Disadvantaged

See description under Institutes, page 237. Summer.

31.565 Institute on Current Problems in Education

See description under Institutes, page 237

31.631 Institute on Reading and Learning Disabilities (3)

See description under Institutes, page 237.

WORKSHOPS, SEMINARS AND INTERNSHIPS**21.710 Seminar in Teaching (3)**

To operate as a cycle stressing, from semester to semester, the following areas: curriculum construction, public relations, school administration and supervision, educational research, and methods and materials of teaching. May be repeated for credit. *Prerequisite:* permission of department. Fall, spring, summer.

21.790 Educational Research (3)

Fundamentals, methodology, and materials for educational research. Required of all students who plan to write master's thesis, doctoral dissertation, or thesis option paper. Letter grade of "B" or better must be maintained in this course in order to graduate. *Prerequisites:* 21.525 or equivalent, and admission to a graduate degree program in education. Spring, summer.

21.791 Research Seminar in Education (3)

A seminar-type course in which a comprehensive research paper is required. Designed especially for M.Ed. candidates. A letter grade of "B" or better must be maintained in this course in order to graduate. *Prerequisite:* 21.790. Fall, spring, summer.

21.792 In-Service Training Project: Internship in Education (3-12)

Internships in cooperating local school systems as an integral part of degree programs in areas such as administration, reading or special education. *Prerequisite:* permission of department.

21.797 Master's Thesis Seminar (3-6)

At least three hours required of all students working on a master's thesis. *Prerequisite:* 21.790. Fall, spring, summer.

21.799 Doctoral Dissertation Seminar (6-12)

Required of all students working on doctoral dissertations. *Prerequisites:* 21.790 and advancement to candidacy for a doctoral degree. Fall, spring, summer.

AMERICAN UNIVERSITY- HILLCREST PROGRAM

Prerequisite: Open only to full-time graduate students accepted and enrolled in The American University-Hillcrest-HEW, Office of Education experimental training project.

- 21.581 Language Arts and Social Studies Curricula in Special Education (2) Fall.**
- 21.582 Methods of Managing Inappropriate Classroom Behavior (2) Fall.**
- 21.583 Theories and Practices in Special Education (2) Fall.**
- 21.584 Methods of Psycho-Educational Assessment (2) Fall.**
- 21.585 Methods of Studying Group Behavior in Special Education, I (2) Fall.**
- 21.586 Mathematics and Science Curricula in Special Education (2) Spring.**
- 21.587 Theories of Child Development (2) Spring.**
- 21.588 Theories and Methods of Urban Education Curriculum (2) Spring.**
- 21.589 Methods of Remediation in Special Education (2) Spring**
- 21.685 Methods of Studying Group Behavior in Special Education, II (2) Spring.**

Educational Administration —(See Education)

English

SPECIAL SECTIONS

1.100 Honors English I (Course)

Limited to first-year students whose registration is approved by the University Honors Board.

1.101 Honors English II (Course)

Limited to first-year students whose registration is approved by the University Honors Board.

English for Foreign Students

See course offerings under College of Continuing Education, English Language Institute. Page 200.

REGULAR SECTIONS

23.100 Composition and Reading I (Course)

Training and practice in writing and critical reading. Concepts of language and rhetoric as the basis for effective expression in English.

23.101 Composition and Reading II (Course)

Continuation of 23.100. Includes techniques of library research, organization and writing of a documented research paper. *Prerequisite:* 23.100.

23.103 Advanced Composition (Course)

Expository writing with some opportunities to write poetry and narrative. *Prerequisite:* 23.101 or equivalent.

23.110 Introduction to Creative Writing (Course)

Creative writing for beginning students who want to write poetry, fiction, drama, reportage, and autobiography with specific assignments in each category.

23.301-23.302 Studies in Literature (Course)

Two semester sequence that introduces student to various kinds of literature and literary problems, from different countries of the world. Required of all literature majors. Recommended for all students who have not had a World Literature Survey. Lectures by the entire department faculty followed by small discussion sections.

23.303 Critical Reading (Course)

Concentrates on means by which literary artists contemplate and comprehend human experience, artistic techniques which shape and achieve form. Required of all literature majors.

READING COURSES

The Department offers two types of reading courses. Both allow the student to read independently and at his own pace.

23.380 Reading Lists (Course)

Student reads one of the 26 prepared lists covering major historical periods in literary history. Opportunities made available for occasional informal discussions. Standard Departmental Lists available in Department office. For further information or instructions consult the Departmental Undergraduate Advisor.

Achievement is tested by a terminal examination, on a pass/fail basis.

23.390 Readings in English

The student, in consultation with a member of the department, prepares a reading list for an area of his particular interest.

For further information or instructions consult the Department Undergraduate Advisor.

Selected Topics (Recurring)

23.394 Major British Writers I: Chaucer to Boswell (Course)

An intensive study of the principal writers of the English tradition: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, and Boswell. Each writer will be examined as a representative voice of his age and as an individual artist.

23.394 Major British Writers II: Wordsworth to Eliot (Course)

An intensive study of the principal writers in the English tradition: Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, and Eliot. Each writer will be examined as a representative voice of his age and as an individual artist.

23.394 Shakespeare I (Course)

Earlier plays, with attention to the development of Shakespeare's artistry, his use of sources, the social and political backgrounds.

23.394 Shakespeare II (Course)

Selected later plays.

23.394 Seventeenth Century Literature (Course)

Commonwealth and Restoration literature, with some attention to continental literature of the century. exclusive of drama (Not offered in fall or spring, 1970-71)

23.394 Studies in Eighteenth Century Literature (Course)

Outstanding authors and dominant literary forms in the neoclassical tradition. Focus on Dryden, Swift, Fielding, and Johnson

23.394 Romantic Literature (Course)

A study of the elements of Romanticism, with close attention to one literary artist. Fall, 1970: Blake. Spring, 1971: Keats

23.394 The English Novel I: 18th Century (Course)

Reading and discussion of the major novelists of 18th century England: Defoe, Richardson, Fielding, Smollett, and Sterne. Each novel is studied as a unique fiction and as a contribution to an emerging genre, the novel.

23.394 The English Novel II: 19th Century (Course)

Reading and discussion of the major novelists of 19th century England: Scott, Austen, Dickens, Thackeray, Eliot, and Hardy. Each novel is studied as a unique fiction and as part of the novelistic tradition.

23.394 Classical Drama (Course)

Greek and Roman tragedy and comedy through selected works in translation.

23.394 British Drama from Sheridan to the Present (Course)

(Not offered in fall or spring, 1970-71)

23.394 Modern European Drama (Course)

Representative plays of European playwrights exclusive of the British Isles from late 19th century to the present.

23.394 Modern American Drama (Course)

American drama from O'Neill to the present
(Not offered in fall, 1970)

23.394 History of the English Language (Course)

Development of the language from old English to modern English, with special studies on phonology, morphology, semantics, and vocabulary.

23.394 Modern American English (Course)

Grammar as a system inherent in English, and an examination of various approaches to English grammar (traditional, structural, transformational, etc.), as well as regional and social aspects of American English.

Selected Topics (Non-recurring)

Courses offered academic year 1970-71.

23.396 Medieval Literature (Course)

The literature of England from *Beowulf* to Malory's *Morte d'Arthur* (1485). Extensive use of modern translations.

23.396 Chaucer (Course)

Reading in *Troilus and Criseyde*, *The Canterbury Tales*, and some minor poems.

23.396 The Baroque (Course)

Intensive study of selected problems in the Baroque, with emphasis upon the 17th century in England and France.

23.396 Readings in European Poetry (Course)

Comparative study of selected French, German and Russian poetry (occasionally poetry from other literatures). Extensive use of bilingual editions, recordings, and oral presentation. Emphasis is on experiencing poetry more fully than can be done through translations alone. Foreign language training desirable, but *not* required

23.396 An Introduction to "The Magic Mountain" (Course)

Detailed and direct exploration of Mann's novel, which will in part be carried out bilingually. Knowledge of German is desirable. Emphasis will be on understanding the complexities of a subtle and difficult text dominated by exploitation of the device of *Leitmotiv*. Familiarity with *Buddenbrooks*, *Death in Venice*, *Tonio Kröger*, and *Fiorenza* at least will be taken for granted.

23.396 Russian Literature in Translation (1)

Selected novels and stories by Turgenev, Dostoyevsky, Tolstoy, Chekhov, Gogol, Pasternak and Solzhenitsyn. Overview of 19th and some 20th century Russian literature and its relation to English literature of the same period. Students write one critical paper.

23.396 Victorian Prose (Course)

Victorian Age in English literature, as reflected in the work of selected major prose writers.

23.396 Styles and forms of experience in the Modern American Short Story and Novel (Course)

Concerns the possible ways the short story and novel forms created by certain important modern American writers are related as versions of shaped fictional "experience"

23.396 An Introduction to Ulysses (Course)

Detailed, direct exploration of the text of Joyce's novel. Students expected to read, or have read, *Dubliners*, the *Portrait*, and *Exiles* on their own, this course presupposes familiarity with Joyce's career up to 1914. Emphasis is on untangling and analyzing the narrative, and becoming sensitive to Joyce's multiplicity of techniques. Reading of Richard Ellmann's biography of Joyce strongly recommended for background reading.

23.396 A National American Literature (Course)

The period covered begins with the late 18th century and ends with the late 19th century—a century of nationalism as manifested in American belles lettres. Writers include C. B. Brown, Cooper, Simms, Emerson, Hawthorne, Lowell, Longfellow, G. W. Harris, Whitman, Garland, and Howells.

23.396 Emerson and His Era (Course)

Artistic achievement of the "American Renaissance" as embodied in the writings of Emerson, Thoreau, Hawthorne, and Melville.

23.396 Poetry in America (Course)

Selected poets, with attention to central traditions of American poetry.

23.396 Black American Writing (Course)

Survey of Black American literature in the new world—the United States and the Caribbean—and the influence Africa has made on this literature: Phillis Wheatley through Malcolm X.

23.396 Classical Myth in Greek and Modern Literature (Course)

A study in continuity. Investigates the way in which treatments of legends and myths vary from their sources and from one another. Instances derived largely from drama.

23.396 The Pastoral Tradition (Course)

A study of the convention and its special uses by individual authors, chiefly Shakespeare and Milton. Readings include classical background and some of the following: *Two Gentlemen of Verona*, *A Midsummer Night's Dream*, *The Merry Wives of Windsor*, *The Winter's Tale*, *Cymbeline*, *The Tempest*, *Lycidas*, *Comus*, *Paradise Lost*, *Paradise Regained*.

23.396 The African Novel (Course)

Comparative study of the novel as a literary genre in sub-Saharan Africa: Achebe, Armah, Beti, Laye, Soyinka, Ngugi, Abrahams, Leroux.

23.396 Introduction to American Folklore (Course)

Survey of folk literature: the ballad, folk tales, folk craft and art, folk industry, and related materials. European and foreign sources. Folklore in literature. (Offered Spring 1971)

23.396 A Critical Approach to the Cinema (Course)

Media theory. Development of an approach to film reading. Practical criticism. A study of how movies function within literary traditions and conventions.

23.396 Retrospective Narrative (Course)

Close reading of a selection of major American retrospective narratives such as *Moby Dick*, *Walden*, *Huckleberry Finn*, *A Farewell to Arms*, and *In Cold Blood*. Develop insight into the nature of storytelling and the relationship of storytelling to other forms of discourse as well as to confront some major works of literature for their own sake.

23.396 The Erotic Metaphor in Contemporary Fiction (Course)

Study of the increasingly important function of erotic metaphor in works by Styron, Mailer, Roth, Updike, and others.

23.396 The Creative Process (Course)

Literature and problems of writing—from the writer's point of view. Various problems of craft are studied in both poetry and prose. (Not offered 1970-1971)

23.396 Metacriticism: Literary Theory in an Interdisciplinary Context (Course)

Key literary concepts in relation to other disciplines. Literary art as science and social science. Some attention to major critics, but emphasis topical rather than historical.

23.396 Literature and Time (Course)

Consideration of the twofold problem of time: the rational problem (does it make sense?) and the moral problem (what does it mean?). Readings from Aristotle, St. Augustine, and Kant, Mircea Eliade's studies of religious myth, and major works of fiction.

23.396 The Contemporary Wasteland (Course)

The theme of natural and spiritual alienation from the literature of antiquity to the literature of the present. The literary concerns of the twentieth century.

23.396 Dynamics of Power (Course)

Literary perspective on power. Power relations among individuals and social systems. Selected poems, short stories, novels, and plays. Out-of-class experiments and papers.

23.490 Independent Project in English

23.491 Internship Program Literature and the Community (Course)

Participants do field work, as volunteers, in a governmental or private agency, attend a weekly seminar, and complete reading and writing assignments that bring together literary study and experience in the field.

23.492 English Internship in Community Teaching (Course)

Practicum in relating literature to groups in non-academic situations (old people, deprived teenagers, probationers, etc.) One seminar a week (resources problem solving, interdisciplinary assistance).

Advanced Courses

Undergraduates enrolled in .500 level courses receive one course unit. Graduate students receive 3 credits for .500 level courses.

23.510 Creative Writing I (3)

Training in writing prose and poetry through individual literary projects suited to student's needs and interests. *Prerequisite*: Permission of instructor.

23.511 Creative Writing II (3)

Style and structure in writing prose and poetry. Practice in writing essays, short stories, and poems. Readings, discussions, conferences. *Prerequisite*: Permission of instructor.

23.590 Readings in English

23.690 Independent Project in English

23.694/696 Selected Topics in Literature (3-3)

Titles identical with those listed under 23.394 and 23.396. Graduate students who wish to receive graduate credit for any of these courses should consult the instructor about special requirements.

23.720 Graduate Seminar in English Literature (3)

Rise of Puritanism and middle-class values in English literature.

23.722 Studies in the Age of Shakespeare (3)

Evolution of tragicomedy; analysis of representative examples from classical and English literature; emphasis on Shakespeare.

23.725 Studies in Literary Modes (3)

Topic, spring 1971: the novel.

23.730 Graduate Seminar in American Literature (3)

Intensive study of selected problems in American literature. (Offered in alternate semesters with 23 720)

See also: Speech Arts. The following courses may be taken for credit toward an English major:

67.550 History of Theatre I**67.551 History of Theatre II****67.556 History of the American Theatre****67.560 Dramatic Theory and Criticism****English as a Foreign Language —(See Continuing Education)****Far East—(See International Studies)****Film—(See Communication; English)****Finance—(See Business Administration)****Financial Investment—(See Business Administration)****Food Marketing—(See Business Administration)****French—(See Languages and Linguistics)****German—(See Languages and Linguistics)****Government and Public Administration****UNDERGRADUATE POLITICAL SCIENCE CURRICULUM****Foundation courses**

These three courses are required of all undergraduate political science majors, and it is expected that political science majors will have 53.100 and 53.150, or equivalent course work, before proceeding to courses at the 300 level.

53.100 Modern Government (Course)

Comprehensive introduction to study of political science. Emphasis on theory, processes, and institutions of politics and government in the modern world. Nature and functions of political systems in society. Principal ideological conflicts today. Theory and practice in countries in varying stages of economic and political development.

53.150 The U. S. Political System (Course)

Development of the governmental system of the United States. Contemporary federalism including the changing relationships of national, state, and local governments. Major institutions of policy making at the national level. Concepts of representation in the American political system.

33.200 Introduction to World Politics I (Course)

See SIS section. Although this is an SIS course, it is an integral part of the political science major foundation.

Areas of Study

Six courses from the following groups are required, including at least one and not more than two of the "Topics" courses. At least one "Topics" course from each group will be offered every semester, with varying topics and format as announced in semester course bulletins. Permission of the instructor is required for enrollment in a "Topics" course.

POLITICAL THEORY**53.310 Early Political Thought (Course)**

Political thinkers, theorists, and movements from Plato through the Middle Ages.

53.311 Modern Political Thought (Course)

Analysis of major political thinkers from the Renaissance to the twentieth century.

53.312 Introduction to Political Inquiry (Course)

Research issues, sources, approaches, and methods.

53.410 Topics in Political Theory (Course)

Various topics, as scheduled, e.g., American political thought; Marxism and socialism; empirical political theory; politics and literature; Non-western political thought.

AMERICAN POLITICS**53.320 Political Behavior (Course)**

Elections and electoral behavior. Roles of public opinion, interest groups, social movements, and political parties in plural societies. Problems in political participation, communication, representation, and leadership.

53.321 Congress and the Presidency (Course)

Role of the national legislative and executive in the policy making process.

53.322 Bureaucracy and Administration (Course)

Theories, organization and management of the public sector. Substantial emphasis on policy making within the Federal executive.

53.323 Law and the Political System (Course)

Basic notions of jurisprudence and the background of the Anglo-American legal system. Description of the American legal system, types of problems dealt with by federal, state, and urban judiciaries, roles of the police, courts, prosecutors, judges, pressure groups, and administrators. Development of the U.S. Supreme Court as a political institution.

53.324 Metropolitan Politics (Course)

Growth of cities and metropolitan areas. Emergence of the urban environment as a focus for public policy. Implications of metropolitan development and functions for organization of government and politics in the US. Impact of metropolis on governmental programs.

53.325 Politics of Afro-America (Course)

Politics of Afro-America, historically and analytically considered. Discussion of the external forces which control the Black community in America. Relation of Afro-America to the African and non-white world. Analysis of the feasibility and viability of Black Nationalism. Articulation and direction of the Black Revolution.

53.420 Topics in American Politics (Course)

Various topics as scheduled, e.g., the Presidency and foreign policy; politics of the budgetary process; the politics of organization; peace politics, political campaigning, communications and politics; federalism; comparative state politics.

COMPARATIVE POLITICS**53.330 Comparative Politics of Industrial Societies (Course)**

Political change and development of selected industrial societies: Britain, France, West Germany, the Soviet Union, and Japan. Comparative study of political leadership, participation, content of public policy, and the policy-making process. Emphasis on the socio-economic, cultural, and international setting of politics.

53.331 Comparative Politics of Agrarian and Industrializing Societies. (Course)

Political order and change in selected countries of Africa, Asia, and Latin America, with emphasis on the themes of nation-building, ideologies of development, the interplay of elites and masses, and the role of the military.

53.430 Topics in Comparative Politics (Course)

Various topics as scheduled, e.g., comparative party systems, comparative public administration, Latin America, Middle East, etc.

For related work, consider the various SIS courses which are styled *Introduction to (region)*.

PUBLIC POLICY**53.340 Government and Public Policy (Course)**

Forces shaping the government's role in social and economic policy. Analysis of substantive policy and program areas: labor, anti-trust, transportation, health, welfare, civil rights, education, urban and environmental policy.

53.341 Civil Rights and Liberties (Course)

Analytical treatment of Supreme Court policy making in the area of civil liberties, with emphasis on the First and Fourteenth Amendments, including constitutional doctrines, current trends, and prospective problems.

53.440 Topics in Public Policy (Course)

Various topics as scheduled, e.g., welfare, environmental problems, urban, resources, military and defense, public enterprise, science policy.

HONORS AND TUTORIAL COURSES (All counted as one course, unless otherwise specially arranged with the associate dean of SGPA.)

56.390 Readings in Government

As specially arranged with supervising faculty member and the associate dean of SGPA.

56.490 Independent Project in Government

As specially arranged with supervising faculty member and associated dean of SGPA.

56.396 Selected Topics

Available only as and if announced in semester bulletins.

56.395 Undergraduate internships in Government and Politics

As specially arranged with supervising faculty member and the associate dean of SGPA.

56.495 Tutorial Seminar for Undergraduate Foreign Students (No Credit)

A vehicle for registration for special assistance in inter-cultural and academic problems for foreign undergraduate students who have need for such assistance. Cost of registration determined on a special fee basis, ranging from \$200 to \$500 per semester, depending on character and extent of assistance required.

56.498 Honors Tutorial Reading in Political Science**56.499 Honors Seminar and Public Affairs Laboratory in Political Science****THE WASHINGTON SEMESTER****56.410 Washington Semester Seminar I (Course)****56.411 Washington Semester Seminar II (Course)****56.412 Washington Semester Research Project (Course)**

Each unit counts as one undergraduate course. All three units must be taken together.

This program is for advanced students enrolled with co-operating institutions, through formal inter-institutional agreements of this program. Study of U.S. government in action, through seminars with senior representatives of U.S. Government agencies, reports, conferences, lectures, and guided seminar evaluations of experience. The research project is an individual analytical report prepared under the guidance and counseling of the academic directors of the program. *Prerequisite:* Selection. All offered every semester.

Washington Semester courses, as listed above, primarily for students who come from other institutions under the arrangements of the Washington Semester Program. Selected political science majors from The American University may participate each semester. For AU students so selected, only two of these three course units will apply on the requirements for the political science major, but this Washington Semester work may be used for the achievement of honors in political science in the same way as the honors courses which are listed above.

THE URBAN SEMESTER

- 56.413 Urban Semester Seminar I (Course)**
56.414 Urban Semester Seminar II (Course)
56.415 Urban Semester Research Project (Course)

Each unit counts as one undergraduate course. All three units must be taken together.

This program is open, by selection, to qualified undergraduates from The American University. Prior permission is required for registration for this program. By special arrangement, a small number of students will be admitted from the Washington Consortium universities and Washington Semester institutions. AU students may count only two of these three course units toward the requirements for the political science major. Each student in the program will attend a series of seminars and prepare an analytical report.

The purpose of the Urban Affairs Semester is to give students a broad introduction to national and local urban affairs policy making. Seminars will be held with urban-oriented committees, agencies, departments, and interest groups. Housing subcommittees of Congress, the Department of Housing and Urban Development, the Department of Transportation, for example, will be included in seminar programs. Seminars will also focus upon the relationships between national urban policies and local decision making. Seminars will be held with urban renewal and housing agencies, local political leaders and metropolitan planning organizations. The program is designed to provide students with a broad introduction to urban problems and programs and to examine the intergovernmental characteristics of urban affairs policy making. Individual research on urban affairs topics will be developed under the guidance of the Urban Affairs Semester directors. *Prerequisites*: 53.150, or equivalent, and permission.

Graduate Courses

This course listing includes a few 500 level courses available to advanced undergraduate students who meet the prerequisites and may also be taken for credit by graduate students. Undergraduates enrolled in 500 level courses receive one course unit. Most are at the 600 or 700 level, and open only to graduate students in non-degree or degree program status.

The presentation of this curriculum is organized as follows:

- Politics and Government
- Public Administration and Management
- Special Courses and Internships

The first two of these are the curricular areas of the graduate degree programs. Within each of these, the courses are grouped by comprehensive examination fields.

Politics and Government

POLITICAL PHILOSOPHY (53.60M AND 53.60D)

53.600 Political Thought of the Modern State (3)

Intensive analysis of the major political philosophers from the Renaissance to the twentieth century. For graduate students who have not had a course in modern political theory. This, or equivalent, required in all M.A. and Ph.D. programs in government. *Prerequisite*: graduate standing.

53.601 Foundations of Western Political Thought (3)

Political thinkers, theorists, and movements from Plato through the Middle Ages. Earlier theoretical foundations of Western civilization and its political institutions and concepts. Appropriate reference to the contributions of Oriental philosophies. *Prerequisite*: graduate standing.

53.602 Contemporary Political Thought (3)

Background and major issues of twentieth century political thought. Contemporary theories and ideological movements. Theoretical implications and contributions of functionalism and behavioralism. *Prerequisites*: 53.600, or equivalent, and graduate standing.

53.603 Marxist and Non-Marxist Socialism (3)

Origins and characteristics of socialist philosophies, ideologies, and doctrines, and their relations to derivative political movements. Their significance for contemporary understanding of the ideological orientations of the developing and the communist nations. *Prerequisites*: 53.600, or equivalent, and graduate standing.

53.604 American Political Theory (3)

Major concepts and ideas of American political thought, especially those influencing development of the American system of government. *Prerequisites*: a course in American history, and graduate standing.

53.605 Non-Western Political Theory (3)

Political theories and politically-related philosophical concepts of non-Western cultures, influence on their own cultures and others. *Prerequisites*: 53.600, or equivalent, and graduate standing.

SEMINARS IN POLITICAL PHILOSOPHY

These seminars in political theory will frequently be scheduled, from semester to semester, with differing special topics, such as "Emphasis on Contemporary Writers," "Contemporary Ideological Issues," etc.

53.700 M.A. Research Seminar (3)

Prerequisite: permission.

53.705 General Seminar (3)

Prerequisite: permission.

53.706 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS

53.770-5 Seminars in Public Law

(When specialized in jurisprudence.)

THEORY AND METHOD OF POLITICAL RESEARCH

This group of courses is not a comprehensive field for comprehensive examination purposes.

53.610 Theory and Method of Political Research I (3)

Review of the philosophical concepts, approaches, and methodologies of social science research, as applicable in political science. Evaluation of the respective approaches and methodologies. Problems of interdisciplinary research. This, or equivalent, required in M.A. and Ph.D. programs in this school. *Prerequisite*: Graduate standing.

53.611 Theory and Method of Political Research II (3)

Building on the philosophical perspectives covered at length in 53.610, course focuses on salient techniques of political research. Emphasis will vary from semester to semester with content selected from: Problems of design: surveys, archives, data banks; sampling, questionnaire construction, interviewing, coding. Problems of analysis: bivariate and multivariate measures of association; causality and causal models; theory of scales, factor analysis; statistical inference. Problems of data processing: computer hardware and software; information storage and retrieval. Introduction to simulation and mathematical modeling. Alternative strategies of research applicable to selected political problems. *Prerequisite:* 53.610. A basic course in statistics is strongly recommended. (Required of all Ph.D. students.)

53.715 General Seminar in Political Science Research (3)

Prerequisite: Permission.

RELATED COURSES FROM THE SOCIOLOGY CURRICULUM**65.512 Quantitative Methods in Sociology (3)****65.612 Social Research Methods I (3)****65.613 Social Research Methods II (3)****65.712 Seminar in Social Research (3)****SCIENCE, TECHNOLOGY AND GOVERNMENT (53.62M AND 53.62D)****53.620 Science and the State (3)**

Interactions of science, scientists, and government, and their political, administrative, and social implications. Problems of public policy in scientific subjects. Roles and obligations of scientists toward and in public policy and administration. Politico-economic implications of governmental scientific research. Implications of science for the traditional state system and international order. *Prerequisite:* Graduate standing

55.513 Technology and Administration (3)

(See 55.061)

53.621 Contemporary Problems of Science Policy (3)

Current issues and special topics, variably of general scope or specialized focus. *Prerequisite:* 53.620.

53.622 Cybernetics and Society (3)

Phenomenon of cybernation, considers threats and promises in the widest array of dimensions: automation and the labor force; formidable implications of computer-amplification of the potentials of scientific research; Soviet concepts and achievements in cybernation of bio-social research, social planning, and societal control; international relations implications of such Soviet concepts; issues for the U.S. citizen, the U.S. social scientist, and the U.S. government. *Prerequisite:* Graduate standing.

53.623 Science, Technology, and International Politics (3)

Effects of science and technology on the territorial state system including changes in instruments of international conduct such as diplomacy, international organization, and war. Scientific components of foreign policy formation including scientific bases of foreign policy issues, patterns of international scientific cooperation, and role of the scientist in the foreign policy process. *Prerequisite:* 53.620.

SEMINARS IN SCIENCE, TECHNOLOGY, AND GOVERNMENT
53.720 M.A. Research Seminar (3)

Prerequisite: permission.

53.725 General Seminar (3)

Prerequisite: permission.

53.726 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS**65.549 The Sociology of Science (Sociology) (3)****75.506-75.507 The History of Scientific Thought I & II (3-3)**

(From Interdepartmental Courses)

55.670 The Politics and Economics of Research and Development (3)

(See 55.067)

COMPARATIVE GOVERNMENT AND POLITICS (53.63M AND 53.63D)**53.630 Graduate Introduction to Comparative Government and Politics (3)**

Comparison of constitutional foundations, governmental institutions, and political processes in their historical, socio-economic and cultural context. Emphasis on major democracies of Western Europe and the USSR. *Prerequisites:* Graduate standing, and 53.650 (may be taken concurrently) or equivalent.

CROSS-NATIONAL COURSES**53.631 Comparative Political Systems (3)**

Origin and change of democratic totalitarian political systems, considered within the context of contemporary concepts and theories of political change, development, and modernization. Interplay of culture, socio-economic structure, and authority patterns. *Prerequisites:* Graduate standing and 53.630 or equivalent.

53.632 Government and Politics of Developing Nations (3)

Sociopolitical characteristics of selected developing nations. Their similarities and differences in governmental structure and the dynamics of politics. *Prerequisites:* Graduate standing, and 53.630 or equivalent.

53.633 Comparative Political Processes (3)

Cross-national study of political participation. Emphasis on stratification, leadership, socialization, and political culture. Problems of field research. Course also serves the comprehensive field of Political Dynamics (53.66). *Prerequisites:* 53.630 and 53.631, for field 53.63; 53.660 and 53.661, for field 53.66 (may be taken concurrently with 53.661).

75.631 The Dynamics of Revolution (3) Joint: SGPA-SIS

Backgrounds and causes of revolutions; assessment and prediction of revolutionary threat or potential. Types and stages of revolution; techniques of revolutionary action. Planning, organization, and conduct of revolution as a conflict instrument. Prevention and suppression of revolution. *Prerequisite:* Graduate standing.

33.658 Seminar on Regional Organizations: Western Europe (3) (SIS)

REGIONAL AND COUNTRY COURSES

Related to comprehensive examination fields 53.70-77 for non-SGPA students only.

53.540 Government and Politics of Western Europe (3)

53.541 Government and Politics of USSR-Eastern Europe (3)

53.542 Government and Politics of The Middle East (3)

53.543 Government and Politics of Africa (3)

53.544 Government and Politics of Communist China (3)

53.545 Government and Politics of Far East (excl. Communist China) (3)

53.546 Government and Politics of South Asia (3)

53.547 Government and Politics of Southeast Asia (3)

53.648 Government and Politics of Latin America (3)

SEMINARS

53.750 M.A. Research Seminar: Comparative Government (3)

Prerequisite: permission.

53.735 General Seminars: Comparative Government (3)

Prerequisite: permission.

53.735 Doctoral Dissertation Seminar: Comparative Government (3-12)

Prerequisite: permission.

RELATED COURSE

19.561 Development Planning (3)

THE AMERICAN GOVERNMENTAL SYSTEM (53.65)

53.650 Graduate Survey of American Government (3)

This course approximates six hours of undergraduate courses in American government. Required of all SGPA graduate degree students who have not had an equivalent. *Prerequisite:* Graduate standing.

53.651 The Legislative Process (3)

Function of the legislature in the American governmental system; with emphasis on Congress and comparative consideration of the state legislature. Organization and procedures, relationships and interactions with the electorate, and the executive, judicial, administrative, and political establishments. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.652 The National Executive (3)

Role and organization of the executive branch in the American governmental system, with emphasis on the presidency and comparative consideration of the office of governor. Functioning of the office as chief of state, in its relationships with legislative, political, administrative, and military establishments, and in formation and control of foreign and defense policy. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.653 American Federalism (3)

Constitutional and functional relations of American federalism. Interrelationships of national, state, and local governments. The concept of federalism in the governmental-economic and other dimensions of American life. Comparative consideration of the role and performance of the states in the American federal system. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.654 The Formation of Public Policy (3)

Integrative study of policy-making process. Relationship of persons, groups, and governmental and non-governmental institutions in initiation, formulation, and implementation of public policy in the United States. Organization and manipulation of opinion. Theories of policy formation and decision making. Course also serves the comprehensive field in Political Dynamics (53.66). *Prerequisites:* 53.651 and 53.652 or 53.661 and 53.662.

53.671 The Judicial System and Process (3)

(See field 53.67)

75.672 Foreign Policy Formation in the U.S. (3) Joint: SIS-SGPA

Conduct and control of foreign policy—emphasis on administrative and policy problems of the United States and selected foreign countries; impact of foreign policy in the domestic and international field; State Department organization and its relation to other departments, Congress, the President, and public opinion. Members may select key problems showing making and control in relation to strategic, military, fiscal, and economic practice. *Prerequisite:* a course in American government.

33.652 Seminar on National Security Policy (3-6)

Principal elements of national security policy. The world setting. Roles of Executive Branch and Congress in policy making, implementation, and control. Civilian-military equation, military doctrine, strategic intelligence. Principal elements of military strategy. Operative economic factors and forces.

SEMINARS IN AMERICAN GOVERNMENTAL SYSTEM

53.750 M.A. Research Seminar (3)

Prerequisite: permission.

53.755 General Seminar (3)

Prerequisite: permission.

53.756 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

POLITICAL DYNAMICS (53.66M AND 53.66D)

Because this is the area in which the behavioral sciences approach has especially been applied, courses related to this subject are oriented from the theoretical and functional point of view, with heavy emphasis on application of the theory and functional perspective to the American political context.

53.660 Political Dynamics (3)

Introduction to nature and roles of public opinion, interest groups, and political parties in the United States. Concepts of political behavior. Functions, organizations and techniques of political action. Problems in political participation, communication, leadership, and decision-making. *Prerequisites:* 53.650 or equivalent, and graduate standing.

53.661 Political Behavior (3)

Theories of American political process. Effects of the social and economic environment on public opinion formation, political leadership, interest group conflict, and party structure. Models of power and decision-making in major institutions of American political life. Problems of concept formation, quantitative evidence, and field research in the examination of American political behavior. *Prerequisites:* 53.650 and 53.610 or 53.660.

53.633 Comparative Political Processes (3)

See field 53.63: Comparative Government

53.663 Political Functions (3)

Varying special sub-subjects: political participation and socialization; political communication; representation and accountability; political leadership; decision making and policy formation. *Prerequisites:* 53.660, 53.610 and 53.661 strongly recommended.

53.654 The Formation of Public Policy (3)

See field 53.65: American Governmental System.

SEMINARS IN POLITICAL DYNAMICS

53.760 M.A. Research Seminar (3)

Prerequisite: permission.

53.765 General Seminar (3)

Prerequisite: permission.

53.766 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

PUBLIC LAW AND THE LEGAL SYSTEM (53.67)

53.670 Constitutional Law and the Supreme Court (3)

Judicial power and the judicial system. The Supreme Court as an institution. Constitutional doctrine and its implications for the political and legal system, with emphasis

on federalism, powers and limitations on government, and the advancement of group and individual interests and rights. Contemporary role of the Supreme Court, its characteristics and problems. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.671 The Judicial System and Process (3)

Nature of judicial process and judicial decision making. Organization, jurisdiction, administration, and comparison of federal and state court systems. Civil and criminal procedures. Functions and relationships of police, prosecutor, courts, and post-trial procedures in administration of criminal justice. *Prerequisites:* 53.650, or equivalent, and graduate standing.

53.672 Administrative Law and Process (3)

Legal foundations of administrative process. Administrative discretion. Types of administrative action and enforcement. Rule making. Administrative adjudication. Organizational, procedural, and judicial controls on administrative discretion. Scope and nature of judicial review of administrative action. Consideration of both national and state practice. *Prerequisites:* 53.650, or equivalent, and graduate standing.

SEMINARS IN PUBLIC LAW AND THE LEGAL SYSTEM

53.770 M.A. Research Seminar (3)

Prerequisite: permission.

53.775 General Seminar (3)

Prerequisite: permission.

53.776 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

As announced in semester schedules, these seminars may be offered variably as continuations in the general scope of this field, or as specializations in some aspect such as legislative drafting and statutory construction, jurisprudence, the law of local, government, or some contemporary constitutional problem.

URBAN AFFAIRS (53.68M AND 53.68D)

53.680 The Urban Polity (3)

Theory of local government. Comparative urban political systems. Relation of total political system to the physical, social, economic, and administrative organization of cities, metropolitan areas, regions, and the megalopolis. Will require thorough familiarization with the literature of urban politics, urban administration, and urban development. *Prerequisites:* 53.650, or equivalent, and graduate standing. Not open to students who have had 53.454 or equivalent.

53.681 Metropolitan Analysis (3)

Interdisciplinary course in application of approaches and methodologies of social science in the planning and analysis of urban affairs. Advanced reading in all disciplines. Creation of an interdisciplinary research design. Course is a search for theory of the metropolis. *Prerequisites:* 53.610 and 53.680.

53.682 Urban Politics (3)

Selected special emphases in various aspects of the politics of urban and metropolitan pluralism: Community and inter-community power systems; politics of core and sub-urb; politics of urban functions; political decision making, organization, participation, communication, leadership in the urban environment. Individual and team research. *Prerequisites:* 53.680, or equivalent, and graduate standing.

53.683 Urban Administration (3)

General and specialized functions of administrators in local, regional, state, and national public agencies dealing with urban affairs. Political, intergovernmental, fiscal, and developmental aspects of urban administration. Field research and case studies. *Prerequisites:* 53 680, or 54 611, or equivalent, and graduate standing.

53.684 Urban Planning (3)

Selective special emphases in the politics and technical problems of urban planning. Comprehensive land planning, social and economic planning, transportation, renewal, rehabilitation and housing, open spaces, recreation, civic design, capital budgeting, zoning and other means of regulation and execution of plans. Special emphasis on political and intergovernmental context of planning and development functions and decisions. Field research. Case studies. *Prerequisites:* 53 680, or equivalent, and graduate standing.

56.531 Urban Affairs Laboratory (6)

See Special Courses and Internships.

56.630 Graduate Internships in National, State and Local Government, or in a Research Organization (6)

See Special Courses and Internships

SEMINARS IN URBAN AFFAIRS

53.780 M.A. Research Seminar (3)

Prerequisite: permission.

53.785 General Seminar (3)

Prerequisite: permission.

53.786 Doctoral Dissertation Seminar (3-12)

Prerequisite: Permission.

RELATED COURSES AND SEMINARS

- 3.534 Cultural Analysis (3)**
- 11.685 Land Planning and Use (3)**
- 11.778 Seminar in Land Planning and Use (3)**
- 65.510 Concepts of Sociology (3)**
- 65.511 Theory of Social Research (3)**
- 65.542 Sociology of Political Action (3)**
- 65.547 Social Stratification (3)**
- 65.567 Urban Redevelopment (3)**
- 65.561 Public Welfare (3)**
- 65.563 Causes of Crime (3)**

GOVERNMENT AND THE SOCIAL ORDER (53.69M AND 53.69D)

Content of this field is the relationship of the governmental system to the major social and economic problems of contemporary society, with primary, but not exclusive, emphasis on the United States. Courses in the field examine causes which lead governments to intervene in social and economic organization, techniques and instruments employed, factors influencing the choice of instruments and policies, trends of policy which may be discerned or predicted, and consequences of present and future policies for the individual and for society.

Courses in this field intersect with the curricula of sociology, economics, and business administration, but they are

not duplications. They do not emphasize the theory and substance of those other areas of knowledge in which policy choices must be made. Rather, they are concerned with the political policy choices required in the use of knowledge from these fields.

Courses open both to the student preparing for comprehensive examination in the field and to the student who has a special interest in a single course. Students must have at least the equivalent of the stated prerequisites. 53 630 Graduate Introduction to Comparative Government and Politics for those taking 53 691, and 53 650 Graduate Survey of American Government for all other courses in the field. Some previous or concurrent work in sociology or economics will be beneficial, but is not required.

53.690 Government and the American Society (3)

Political, economic, and cultural setting of American society as source of the major problems of governmental policy and action. Ideological and constitutional foundations and concepts of the governmental role in social and economic policy. Contemporary policy and practice in planning, regulation, promotion, and redistribution. Problems and consequences with respect to distribution and relationships of social, economic, and political power, status, and benefit. *Prerequisites:* Graduate standing and 53 650 or equivalent.

53.691 Comparative Public Policy (3)

Comparative study of the patterns of government economic and social policy in various countries and of factors affecting policy choices. Effects of political and social structure, historical experience, attitude, ideas, and ideologies upon the policies with which governments attempt to deal with economic and social problems. Close examination of examples chosen from selected industrialized and less-developed countries. *Prerequisites:* Graduate standing, and 53 630 or equivalent.

53.692 Government and the American Future (3)

Definition of long-range goals of the future American society, attributes of policy and action required to fulfill them; governmental process of societal planning, computation of social, economic, and political costs; engineering the achievement of social and political change. *Prerequisites:* Graduate standing, and 53.650 or equivalent

53.620 Science and the State (3)

See description under comprehensive field 53.62.

53.693 Contemporary Problems of Social Policy (3)

Each offering of this course focuses on a special problem area of current importance—race relations, poverty, air pollution, education, etc. For the selected topic, the course will attempt to define the issues, to analyze the social, legal, political, and administrative factors which affect it, and to design and compare the possibilities and patterns of governmental resolution. *Prerequisites:* Graduate standing, and 53.650 or equivalent.

SEMINARS IN GOVERNMENT AND THE SOCIAL ORDER

53.790 M.A. Research Seminar (3)

Prerequisite: permission.

53.795 General Seminar (3)

Prerequisite: permission.

53.796 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS

65.542 Sociology of Political Action (3)

(Sociology)

19.561 Development Planning (3)

(Economics)

19.761 Theory of Economic Development (3)

(Economics)

10.500 Private Enterprise and Public Policy (3)

(SBA)

10.705 Seminar in Business-Government Relations (3)

(SBA)

Public Administration and Management

For students who have entered graduate degree programs in Public Administration prior to September 1970, the previous comprehensive field pattern of 54.60 (*The Governmental Administrative Establishment*) and 54.61 (*The Management of the Governmental Administrative Establishment*) will continue to apply. For those students who enter such programs in September 1970 or after, these fields will be combined into one general comprehensive field: 54.63: *Public Administration*. See Associate Dean Cleary for details of this program change.

Undergraduates enrolled in 500 level courses receive one course unit.

PUBLIC ADMINISTRATION (54.63M and 54.63D)

Basic course (old pattern)

54.610 Modern Public Management I (3)

Management as a social function. Streams of past social, economic, political, and scientific thought which have merged in theory and practice of modern management. Scientific management movement, public administration movement, modern management movement in business and government. Basic principles of organization, administrative direction, and operation of the complex managerial establishment in government. *Prerequisite*: Graduate standing.

Basic course (new pattern)

54.600 The Administrative State (6)

Double team-taught course required as the introduction to public administration for all students who enter a graduate degree program in public administration in September 1970 or after.

Public bureaucracy as a social institution and process of its management as a social function. Ecology of public bureaucracies, their institutional-structural characteristics, behavioral patterns, administrative processes, and policy outputs. Internal managerial process in governmental, bureaucracy, as indicated in the description of 54.610 above. *Prerequisites*: Graduate standing and 53.650 or equivalent.

Additional courses (for old and new patterns as applicable)

54.602 Comparative Public Administration (3)

Managerial-administrative establishments of the major nations, as they compare with each other in conceptual foundations, structural characteristics, and functional performance. Particular emphasis on contemporary characteristics, and developments. *Prerequisite*: 54.610 or 53.630.

54.603 Administration in International Organizations (3)

History and present character of administration in the international agency context. Varieties of international administrative agencies and their special requirements of organization, secretariat structure and operation, and adaptation of general management practices. Special problems of communication, leadership, and interpersonal relations in the culturally mixed staff. Administrative-political relations in the international agency. Special emphasis on the League of Nations, historically, and the United Nations complex. *Prerequisite*: 54.610 or 33.640.

54.611 Modern Public Management II (3)

Perspectives, problems, and processes of the executive function of directing the managerial-administrative organization, including the major characteristics and roles of the spectrum of management sub-functions which it must depend on and integrate. Emphasis on governmental context, but with appreciation of the similarities and contrasts with non-governmental management. Main lines of behavioral and organizational theory of managerial organization and management function. (Different competence of diagnostic analysis and creative engineering of administrative structure and process is the burden of 54.613.) *Prerequisite*: 56.610.

54.612 Advanced Organization Theory (3)

Exploration and analysis of prescriptive and descriptive explanatory theories of the administrative process in government.

54.613 The Analysis of Governmental Organization and Operation (3)

Evaluation and diagnosis of governmental administrative organization, performance, and productivity. Design and installation of organizational and operational systems and procedures. *Prerequisite*: 54.610.

54.614 The Staff Function in Government (3)

Function of senior governmental staff service. Military and civilian perspectives and concepts. Special problems of the staff executive. Mechanisms and systems of staff coordination and control. The directive instruments of administration. *Prerequisite*: 54.611.

53.672 Administrative Law and Process (3)

See field 53.67.

54.640 Federal Fiscal Policy (3)

See field 54.64.

54.651 Public Manpower (3)

See field 54.65.

55.660 Management Information and Reporting Systems (3)

See Technology and Administration under Continuing Education.

SPECIALIZED COURSES

(not included in the comprehensive field pattern)

54.510 The Management of Institutional Records Systems (3)

Kinds and functions of institutions' paper and paperwork, with primary emphasis on development and installation of a records management problem. Physical facilities; systems and equipment for storage of record and information paper; reproduction processes and equipment, mail; correspondence, telecommunications. (For comprehensive systems of automated information storage and processing, see courses under field 55.66.) *Prerequisite:* administrative experience, or undergraduate course work in government, public administration, or business administration.

54.511 Applied Administrative Management (3-9)

A special purpose course arranged for specially organized groups of foreign participants

SEMINARS IN GOVERNMENTAL MANAGEMENT**54.710 MA-MPA Research Seminar (3)**

Prerequisite: permission.

54.715 General Seminar (3)

Prerequisite: permission.

54.716 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

GOVERNMENTAL FINANCIAL POLICY AND PROGRAM (54.64M and 54.64D)

The School of Government and Business Administration of The George Washington University regularly offers the following courses in this same field:

- PA 248 Financing Municipal Services (3)
- PA 251 Governmental Budgeting (3)
- PA 252 Problems in Planning, Programming, and Budgeting (3)
- PA 254 Seminar: Financial Management in the Federal Service (3)

In keeping with the purpose of the Consortium of Universities, SGPA will increasingly use these GWU courses as substitutes for its own courses in satisfaction of the requirements of this comprehensive field. For this field, the courses listed in the semester schedules of classes will be a correlated combination from the above GWU courses and the following SGPA courses.

54.640 Federal Fiscal Policy (3)

Fiscal significance and effect of the federal budget. Consideration of subjects of national income level, tax structure, and the large expenditure areas (e.g., national defense, foreign aid, agricultural support, veterans' benefits, the public debt) as they bear on decisions and actions of federal budget administrators. *Prerequisite:* graduate standing and at least introductory economics.

54.641 Federal Financial Management and Comptrollership (3)

Financial functions of federal administration, including roles and relationships of the central agencies, and the budget, accounting, and other financial functions of the financial administration of the individual department or agency. For the general manager who needs to know contributions of financial management to his broader management responsibilities, and for the specializing executive or staff member who will be responsible for the financial function. This is not an accounting course. *Prerequisites:* a course in public administration or experience in budgeting or financial administration, 53.650, and graduate standing.

54.642 Financial Administration in State and Local Government (3)

Fiscal significance and effect of state and local governmental financial administration. Fiscal functions of budget, treasury management, accounting, and auditing, considered in the perspective of the administrator in state and local levels of American government. *Prerequisites:* 54.610, 63.683, or one of the preceding courses in this field, plus 53.650 and graduate standing.

54.643 Governmental program and Budget (3)

Processes and instruments of planning, programming, and budgetary functions of the modern public managerial establishment, emphasis on current approaches of the federal government in this function. A course to produce top managers and senior staff specialists who can design, use and integrate functional systems for maximum managerial effectiveness in making decisions and control of performance. *Prerequisites:* a course in public administration or experience in budgeting, 53.650 and graduate standing

54.644 Federal Budgetary Procedure (3)

Budgetary practice of the federal government, from the operating viewpoint. Budget cycle. Preparation and justification of estimates. Budget execution. Comparison of agency practices and techniques in budgeting. *Prerequisites:* a course in public administration or experience in budgeting, 53.650 and graduate standing.

SEMINARS IN GOVERNMENTAL FINANCIAL POLICY AND PROGRAM**54.740 MA-MPA Research Seminar (3)**

Prerequisite: permission.

54.745 General Seminar (3)

Prerequisite: permission.

54.746 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

RELATED COURSES AND SEMINARS**10.657 Planning—Programming—Budgeting (3)**

(See SBA)

19.541 Public Economics I (3)

(See Economics)

PUBLIC PERSONNEL ADMINISTRATION (53.65M AND 53.65D)

The School of Government and Business Administration of The George Washington University regularly offers courses in this same field.

- PA 231 Public Personnel Administration (3)
- PA 232 Problems in Public Personnel Management (3)
- PA 233 Seminar: Manpower Development and Utilization (3)
- PA 235 Technological Change and Manpower (3)

In keeping with the purpose of the Consortium of Universities, SGPA will increasingly use GWU courses as substitutes for its own courses to satisfy the requirements of this comprehensive field. For this field, courses listed in the semester schedules of classes will be a correlated combination from the above GWU courses and the following SGPA courses

54.650 Principles of Public Personnel Administration (3)

Personnel administration as an integral aspect and function of management. Its relationships with other managerial and administrative functions and processes. The characteristics and procedures of the major personnel sub-functions: recruitment, selection, classification, evaluation, training, etc. The federal civil service system will be the primary frame of reference, but with some generalizing and comparative extension to other variants of U.S. personnel administration system.

54.651 Public Manpower (3)

Problems of national and governmental manpower supply and demand. Comparative study of military and non-military policies and practices in planning personnel requirements of the administrative agency. Comparison of governmental and non-governmental practice. Problems of creating supply to fulfill difficult demand job redesign, training and retraining, centralization and services; incentives; etc

54.652 Psychological Instruments and Methods in Public Personnel Administration (3)

As applicable in: applicant appraisal, employee selection, placement, and evaluation; testing, rating, interviewing, and investigation; analysis of group relational and behavioral problems of efficiency, fatigue, accident experience, motivation, morale, etc.

54.653 Executive Selection and Appraisal in Government (3)

Intensive analysis of the problems of executive, as contrasted with other, personal selection and appraisal, with comprehensive consideration of insufficiencies of current methods, of requirements of the problem, and of possibilities and methods for achieving significant improvement.

54.654 The Labor Relations of Public Employment (3)

Review of rapidly changing patterns of relationships among public employers, employees, and organizations of public employees, and of their implications; critical evaluation and design of policies, administrative concepts, and procedures for keeping pace with the dynamics of this field.

SEMINARS IN PUBLIC PERSONNEL ADMINISTRATION

54.750 MA-MPA Research Seminar (3)

Prerequisite: permission.

54.755 General Seminar (3)

Prerequisite: permission.

54.756 Doctoral Dissertation Seminar (3-12)

Prerequisite: permission.

COURSES RELATED TO ARCHIVAL ADMINISTRATION

Courses in this subject may be found in the Department of History. SGPA students may elect this subject as a comprehensive examination field, under the History Department field number, with the special approval of the Dean of SGPA.

ONE SPECIALIZED STAFF OR LINE FUNCTION (54.67M AND 54.67D)

Consult the SGPA associate dean for graduate programs for consideration of possibilities and requirements.

Special Courses and Internships Inter-College Programs

56.610 The Washington Graduate Year: Cooperative Graduate Study Supervision

(Credit as determined by arrangements with formally co-operating institutions.)

The American University offers to other U.S. colleges and universities who wish to enter mutually satisfactory arrangements for the purpose, to stand *in loco academic parentis* in the provision of academic counseling and guidance in course work for their graduate students who may need to carry on graduate study or dissertational research in Washington, D.C. This possibility must be limited to those students whose interests lie within one of the major curricular areas of this school, as described in the preceding pages of this catalog

Comparative Government Workshops Abroad

56.520 Summer Traveling Seminar (3-6)

Approximately 45 60 days.

56.521 In-Year Traveling Seminar (3-6)

One semester.

Field study of the governments of Europe or other areas of the world as announced, under the direction of a senior member of the faculty of this school. (Send for brochure.)

Field Study Programs in American Government

56.530 Washington Semester Summer Seminar (6)

A concentrated version of the special features of the Washington semester program which The American University offers for cooperating schools during the regular academic year. Supervised field study of the U.S. government, through seminars and conferences with public officials, with interpretation and synthesis in seminars conducted by the directing school faculty member. Will require student time of five full days per week for one five-week summer session. While post-graduate students are eligible, this course will not normally apply toward SGPA graduate program requirements. *Prerequisite:* permission, after advisory consultation or correspondence. The student should have the background of at least one graduate course in American government.

56.531 Urban Affairs Laboratory (6)

Intensive field study of urban affairs and the federal-urban relation in the Washington, D.C. setting. Laboratory focus on selected special topics which vary from term to term, with seminar meetings and conferences with representatives of governmental and private agencies concerned with the topic selected. Students assigned extensive readings and special problems for personal investigation. The whole will be tied together with interpretive sessions with the supervising faculty member. *Prerequisite:* permission.

56.591 In-Service Training Projects (3)

Opportunity for a limited number of qualified persons to receive credit for job-related study and research, under the joint supervision of the school faculty and officers of the agency of employment. Such agencies may be either governmental or private. *Prerequisite:* permission.

56.630 Graduate Internships in National, State, and Local Government, or in a Research Organization (6)

Arrangements for scheduled work assignments in participation, observation, and research, and seminar integration under cooperative supervision of a government official or a research director and a member of the school faculty.

The Teaching of Politics and Government**56.740 Colloquium on the Teaching of Politics and Government (1)**

A very informal association of groups of faculty members with those students who intend the college level of teaching as a career, to convey perspectives and experience, and to guide the participating students in systematic preparation. *Prerequisites:* Graduate standing and permission.

Reading, Research and Tutorial**56.590 Readings in Government (1-6)**

As arranged with advisor and supervising faculty member.

56.690 Independent Project in Government (1-6)

As arranged with advisor and supervising faculty member. For students who have been advanced to candidacy for the master's or Ph.D. degrees, such a research project may be developed as a comprehensive case study in politics, government, administration, or the technology of management, for credit up to 6 hours.

56.695 Tutorial Seminar for Foreign Graduate Students (No Credit)

The vehicle for registration by foreign graduate students who require it for special assistance in their intercultural academic problems. Cost of registration determined on a special fee basis, ranging from \$200 to \$500 per semester depending on the extent and character of the assistance required.

56.797 Master's Thesis Seminar in Politics and Government or Public Administration (6)**56.799 Doctoral Dissertation Seminar in Politics and Government or Public Administration (6-12)****Health, Physical Education, and Recreation***Undergraduate Courses***49.100 Swimming I (Half-course)**

Development of basic skills and personal safety in swimming.

49.101 Swimming II (Half-course)

Continuation of 49.100. *Prerequisites:* 49.100 or permission of instructor.

49.102 Life Saving (Half-course)

Development of safety skills, use of life saving equipment and techniques of swimming rescues. *Prerequisites:* 49.101 or permission of instructor.

49.103 Skin Diving and Survival Swimming (Half-course)

Basic use of equipment and techniques of underwater photography and spear fishing.

49.104 SCUBA (Half-course)

Techniques in the use of self-contained underwater breathing apparatus. *Prerequisite:* 49.103 or permission of instructor.

49.105 Springboard Diving (Half-course)

Development of beginning and advanced diving skills.

49.106 Synchronized Swimming (Half-course)

Skills and techniques of individual figures, partner stunts and formations; choreography and production of original routines.

49.107 Small Craft (Half-course)

Development of basic skills in small craft handling. *Prerequisite:* Permission of instructor.

49.108 Water Sports (Half-course)

Basic skills of water polo, water basketball, and other aquatic sports.

49.110 Bowling I (Half-course)

Development of basic skills in bowling.

49.111 Bowling II (Half-course)

Continuation of 49.110. *Prerequisite:* 49.110 or permission of instructor.

49.120 Karate I (Women) (Half-course)

Development of basic defensive skills of karate.

49.121 Karate I (Men) (Half-course)

Development of basic defensive skills of karate.

49.122 Karate II (Women) (Half-course)

Continuation of 49.120 with an emphasis upon karate as a sport. *Prerequisite:* 49.120 or permission of instructor.

49.123 Karate II (Men) (Half-course)

Continuation of 49.121 with an emphasis upon karate as a sport. *Prerequisite:* 49.121 or permission of instructor.

49.124 Wrestling (Half-course)

Development of wrestling skills.

49.130 Modern Dance I (Half-course)

Development of the ability to communicate through movement.

49.131 Modern Dance II (Half-course)

Continuation of 49.130. *Prerequisite:* 49.130 or permission of instructor.

49.132 Folk and Square Dance (Half-course)

Development of skills and understanding of the dances of various cultures including ethnic dances of this country.

49.140 Fencing I (Half-course)

Development of basic skills of foil fencing.

49.141 Fencing II (Half-course)

Continuation of 49.140 with emphasis upon competition. *Prerequisite:* 49.140 or permission of instructor.

49.150 Golf I (Half-course)

Development of basic skills of golf.

49.151 Golf II (Half-course)

Continuation of 49.150. *Prerequisite:* 49.150 or permission of instructor.

49.160 Trampoline and Free Exercise (Half-course)

Development of basic skills of trampoline, tumbling and free exercise.

49.161 Gymnastics—Apparatus I (Half-course)

Development of basic skills of gymnastic apparatus work.

49.162 Gymnastics—Apparatus II (Half-course)

Continuation of 49.161. *Prerequisite:* 49.161 or permission of instructor.

49.163 Tumbling and Balancing I (Half-course)

Development of basic mat work and balancing skills.

49.164 Tumbling and Balancing II (Half-course)

Continuation of 49.163 with emphasis upon doubles and triples balancing. *Prerequisite:* 49.163 or permission of instructor.

49.170 Recreational Activities (Half-course)

Development of skills of selected individual, dual and team activities with emphasis upon seasonal sports. Content varies. May be repeated for credit.

49.180 Tennis I (Half-course)

Development of basic skills of tennis.

49.181 Tennis II (Half-course)

Continuation of 49.180. *Prerequisite:* 49.180 or permission of instructor.

49.190 Fitness Workshop (Half-course)

Progression of cardio-vascular build-up and development of skills in a system of physical exercise for bodily control including aerobics and yoga.

49.191 Weight Training (Half-course)

Development of weight training skills.

Lecture Courses

49.210 Methods and Materials in Physical Education (Course)

Principles and techniques of instruction applicable to physical education at elementary and secondary school levels. Includes laboratory work.

49.211 Techniques of Hockey/ Volleyball (Women) (Half-course) Techniques of Football/ Wrestling (Men) (Half-course)

Development of skills, techniques and methods in teaching each sport including rules and team organization.

49.212 Techniques of Soccer/Folk and Square Dancing (Half-course)

Development of skills, techniques and methods in teaching soccer, including rules and team organization, and development of skills, techniques and methods of teaching folk and square dancing.

49.213 Techniques of Basketball/ Softball (Women) (Half-course) Techniques of Basketball/ Baseball (Men) (Half-course)

Development of skills, techniques and methods in teaching each sport including rules and team organization.

49.214 Techniques of Gymnastics/ Track and Field (Half-course)

Development of skills, techniques and methods in teaching each activity.

49.215 Methods of Teaching Swimming (Half-course)

Development of skills, techniques and methods of teaching swimming and coaching. *Prerequisite:* permission of instructor.

49.216 Methods of Teaching Dance (Half-course)

Development of skills, techniques and methods of teaching dance.

49.217 Methods of Teaching Individual, Dual and Recreational Activities (Half-course)

Development of skills, techniques and methods in teaching individual and dual sports and recreational activities. *Prerequisites:* 49.210 or the equivalent and permission of departmental advisor. May be repeated.

49.218 Techniques of Officiating (Half-course)

Rules and officiating techniques of selected sports. Supervised practice in officiating. May be repeated for credit.

49.221 Foundations and History of Physical Education and Sport (Course)

Introduction to the professions of health education, physical education and recreation. Development, role in general education, and principles guiding the conduct of programs. Historical growth and development of competitive sport; the role of sport in schools and colleges, its trends and problems.

49.230 Workshop in Dance Production (Course)

Development of techniques and the provision of experience in various phases of dance production.

49.235 Advanced Methods of Teaching Modern Dance (Half-course)

Understanding the value of dance education and development of approaches to teaching dance at various age levels.

49.301 Water Safety (Half-course)

Preparation for teaching swimming and diving. Techniques of aquatic safety leading to a Red Cross Water Safety Instructor's Certificate. *Prerequisite:* Senior Life Saving.

49.310 Elementary School Rhythmic Activities (Course)

Survey of materials and methods of teaching fundamental movement rhythms and singing games at the elementary school level. *Prerequisite:* Junior standing or permission of instructor.

49.315 Care and Prevention of Athletic Injuries (Course)

Introduction to the basic concepts and techniques in the prevention, treatment and rehabilitation of sports injuries; implications for conducting an adapted physical education program at the secondary school level. Practical application of first aid and therapeutic measures.

49.324 Principles and Psychology of Coaching (Course)

Principles and techniques of coaching athletic teams; emphasis on the psychology of teaching and motivating athletes.

49.325 Rhythms and Accompaniment (Course)

Development of an awareness of rhythms and understanding basic elements of time; application to dance composition and accompaniment.

49.326 History and Philosophy of Dance (Course)

An understanding and appreciation of the contribution of dance to the cultural development of mankind.

49.330 Health and Safety (Course)

Fundamentals of health education for the prospective teacher.

49.335 Elementary School Games (Course)

Survey and application of physical education instruction and play activities for elementary school children.

49.340 Camping and Outdoor Education (Course)

Philosophical bases of camp instruction and outdoor education and its implications for the curriculum. Theory and practice of techniques for camping. Field trips and observations arranged.

49.390 Readings in Health, Physical Education, and Recreation**49.396 Practicum in Physical Education (Course) (January Intersession only)**

Concentrated, planned experience outside the classroom in physical education. Content will vary with each intersession. May be repeated for credit.

49.401 Composition of Dance (Course)

Discovery of a rich movement vocabulary and techniques of choreography.

49.421 Organization and Administration of Health, Physical Education and Athletics (Course)

Principles of organizing and administering health, physical education and athletic programs. Consideration of personnel, schedules, equipment, facilities, curriculum, and related problems.

49.424 Kinesiology and Physiology of Exercise (Course)

Mechanical principles as they apply to the performance of motor skills, and physiological changes as they occur in the body during and after activity.

49.490 Independent Project in Health, Physical Education, and Recreation.**Advanced Courses**

(500-level courses open to graduate students and advanced undergraduates; graduate students who enroll in 500-level courses will receive 3 credits; 600-level courses open only to graduate students, undergraduates will receive one course unit.

49.500 Measurement and Evaluation in Health and Physical Education (3)

Purposes and principles of measurement and evaluation in health and physical education. Survey of selected tests and basic statistical techniques for interpretation of results.

49.510 Health Education (3)

Survey and interpretation of current trends and thinking in health education.

49.520 Current Problems, Trends and Research in Physical Education (3)

Identification of current problems in the profession and a survey and interpretation of research and trends pertaining to them.

49.530 Curriculum in Physical Education (3)

Principles and procedures of curriculum development in physical education.

49.550 Recreation Programs (3)

Survey of agencies and programs in the field of recreation with attention to principles and techniques for conducting these programs

49.590 Readings in Health, Physical Education, and Recreation**49.601 Workshop in Health, Physical Education and Recreation (3)**

Investigation of a specific timely topic in the area of health, physical education or recreation. Content will vary with each semester. May be repeated for credit.

49.610 Planning Facilities for Health, Physical Education and Recreation (3)

Principles, criteria, and standards used in planning facilities for health, physical education and recreation.

49.620 Philosophy of Physical Education (3)

Exploration in depth of the eclectic rationale of physical education.

49.690 Independent Project in Health, Physical Education, and Recreation**Physical Education—(See Health, Physical Education and Recreation)****Recreation—(See Health, Physical Education and Recreation)****Honors and Tutorial Courses—(See Government)****Hospital Training Program—(See Nursing)****Industrial Relations—(See Business Administration)****History**

(See also *Interdisciplinary Courses*, 75.120-121 Selected Human Problems I-II. An interdisciplinary, problem-oriented course involving lectures by representatives of several disciplines and small discussion sections.)

29.191 Freshman Seminar (Course)

Readings and research in selected historical topics for first year undergraduates. May be taken twice for credit with departmental permission.

29.201 The Ancient World: The Ancient Near East (Course)

Egypt, Mesopotamia, Crete, Assyria, Persian Empires, Mycenaean Greece.

29.202 The Ancient World: Greece (Course)**29.203 The Ancient World: Rome (Course)****29.204 Medieval Europe (Course)**

Topics in medieval political, social, religious and economic history

29.205 History of Modern Europe (Course)

Nature, causes, social consequences of the Reformation, Catholic Reformation. Evolution of political ideologies and institutions. Expansion of commerce and the growth of empires. French Revolution and the Age of Napoleon.

29.206 History of Modern Europe II (Course)

Development of European nationalities from 1815 to the present. Age of Metternich, rise of liberalism, industrial revolution, and social, cultural, and economic bases of nationalism and imperialism.

29.211 History of the United States I (Course)

Survey course giving a comprehensive history of our country from colonial times to the Civil War.

29.212 History of the United States II (Course)

Survey course giving a comprehensive history of our country from the Civil War to the present.

29.291 Sophomore Seminar (Course)

Readings and research in selected topics for second year undergraduates. May be taken twice on advice and with departmental permission.

29.301 History of England I (Course)

Political, economic, social, and cultural life in England to 1689. Origins and development of constitutional government. Beginnings of empire.

29.302 History of England II (Course)

England and the British Empire since 1689. Evolution of constitutional government, expansion of empire, the empire system since World War II.

29.305 History of Latin America to 1860 (Course)

Colonization by Spain, Portugal, and France. Causes and developments of independence movements. Political, social, economic and ideological aspects of national developments.

29.306 Latin America Since 1860 (Course)

Economic nationalism, militarism, and reform movements. Cultural and religious developments.

29.309 History of Russia I (Course)

Eastern Slavs from the 10th century to the empire of Alexander II. Development of institutions and culture.

29.310 History of Russia II (Course)

Russia encounters industrialization and revolution, from the Emancipation to the Khrushchev era. Emphasis on internal political, socio-economic, and cultural developments.

29.313 History of East Central Europe I (Course)

From the Baltic to the Balkans. Political, economic and intellectual development to the 1870's.

29.314 History of East Central Europe II (Course)

From the Baltic to the Balkans. Political, economic, and intellectual development since the 1870's.

29.317 Social History of the United States I (Course)

Social factors in U.S. History from colonial times to the Civil War. Emphasis upon family, labor, immigration, slavery, religion, the westward movement.

29.318 Social History of the United States II (Course)

Analysis of American society since the Civil War, with special attention to social classes and ethnic groups, industrialism, technology, the social gospel, social welfare, and urban developments.

29.321 The Afro-American in U.S. History (Course)

The experience of Blacks in America from 1619 to the present. Contributions Blacks have made to American society and the effect of White society upon the Blacks. *Suggested prerequisites:* 29.211-212.

29.325 Introduction to African History (Course)

Attempt to assess the historicity of human experience in Saharan Africa and in Africa south of the Sahara. Attention to the development and disruption of Black cultures in Africa.

29.329 Islam in the World (Course)

Historical background of the age of the Prophet; development and expansion of Islamic Civilization from the seventh century to the recent past.

29.333 The City in History (Course)

Historical development of the city; the place of the city in the history of civilization; the city as a blessing and as a problem.

29.341-342 Introduction to Asian Histories I-II (Course, Course)

Fundamental characteristics of four major Asian regions: Japan, China, Southeast Asia, and India. Comparative approach, focusing on problems of concern in historical development of all four regions. *Prerequisite:* 29.341.

29.390 Readings in History

29.401 Historiography (Course)

Selected analysis of major historians in United States, Europe and other areas.

29.490 Independent Project in History

29.491 Senior Seminar: U.S. History (Course)

Introduction to methods and materials in historical research and writing, with special emphasis on resources in the Washington area. Senior standing in department or approval. May not be taken in same semester as practice teaching.

29.491 Undergraduate Seminar: Europe and Other Areas (Course)

Introduction to methods and materials in historical research and writing with special emphasis on resources in the Washington area. Senior standing in department or approval. May not be taken in same semester as practice teaching.

29.590 Readings in History

29.690 Independent Project in History

EUROPE

Undergraduate students enrolled in 500 level courses receive one course unit.

29.501 Period Studies in Western European History (3)

Readings and lectures in selected periods of modern Western European history. Periods treated on a rotational basis include Renaissance, Reformation, Europe 1914-1939, Europe since 1939, as well as selected periods in 17th, 18th, and 19th-century history.

29.503 Period Studies in French History (3)

Readings and lectures on selected periods of French history.

29.505 Period Studies in German History (3)

Readings and lectures on selected periods of German History, including the period from Bismarck to Adenauer.

29.507 Period Studies in Russian and East European History (3)

Readings and lectures on selected periods and areas of Russian and East European history.

29.509 Period Studies in British History (3)

Readings and lectures on selected periods of British colonial and imperial history.

29.521 Topics in Western European History I (3)

Lectures and readings on selected topics in early modern Western European history.

29.522 Topics in Western European History II (3)

Lectures and readings on selected topics in recent modern Western European history.

29.525 Topics in British History I (3)

Lectures and readings on selected topics in early modern British history.

29.526 Topics in British History II (3)

Lectures and readings on selected topics in recent modern British history.

29.529 Topics in Russian and East European History I (3)

Lectures and readings on selected topics in early Russian and East European history.

29.530 Topics in Russian and East European History II (3)

Lectures and readings on selected topics in early Russian and East European history.

29.551 Intellectual History of Europe I (3)

Ideas and outlooks that have influenced the development of Western history from the 13th to the 17th century.

29.552 Intellectual History of Europe II (3)

Scientific revolution, enlightenment and romanticism; late 17th century, 18th, and early 19th century thought.

29.553 Intellectual History of Europe III (3)

European thought in the transition of the machine age from the young Hegelians to the Existentialists.

29.561 European Economic History I (3)

European economic development in early modern times. Not offered in 1970-71.

29.562 European Economic History II (3)

European economic development from the late 18th century. Not offered in 1970-71.

29.569 Diplomatic History of Europe I: 1789-1871 (3)

Wars of the French Revolution and Napoleon; the Metternich Era; the revolutions of 1848-49; the unification of Italy and of Germany.

29.570 Diplomatic History of Europe II: 1871-1939 (3)

Continuation of 29.569, but may be taken as a separate course. Era of Bismarck; formation of alliances and counter-alliances; diplomacy of colonial imperialism; First World War and the Versailles settlements; the totalitarian threat to the balance of power.

UNITED STATES**29.511 Period Studies in U.S. History (3)**

Readings and lectures in selected periods of U.S. History, including colonial.

29.531 Topics in U.S. History I (3)

Lectures and readings on selected topics in early U.S. history.

29.532 Topics in U.S. History II (3)

Lectures and readings on selected topics in recent U.S. history.

29.555 Intellectual History of the U.S. I (3)

Ideas and attitudes of the American people and their leaders from colonial times to the Civil War. Puritanism, the enlightenment, transcendentalism, democracy, and nationalism.

29.556 Intellectual History of the U.S. II (3)

Dominant patterns of American thought from the Civil War to the present. Impact of Darwinian evolution, industrialism, the vanishing frontier, progressive democracy, imperialism, and war.

29.565 Economic History of the U.S. I (3)

American economic development from the colonial beginnings to the mid-19th century.

29.566 Economic History of the U.S. II (3)

American economic development during the past one hundred years.

29.573 History of U.S. Foreign Policy I: 1776-1900 (3)

Historical treatment and critical analysis of American foreign policy from the beginning to the end of the 19th century.

29.574 History of U.S. Foreign Policy II: 1900 to the Present (3)

Continuation of 29.573 to the present; growing role of the U.S. in world affairs. 29.573 is not a prerequisite.

LATIN AMERICA**29.513 Period Studies in Latin American History (3)**

Readings and lectures on selected periods and areas of Latin American history.

29.537 Topics in Latin American History I (3)

Lectures and readings on selected topics in early Latin American history.

29.538 Topics in Latin American History II (3)

Lectures and readings on selected topics in recent Latin American history.

29.559 Latin American Intellectual History (3)

Spanish and Portuguese backgrounds. Ideas of the Independence leaders. Mid-century liberalism and romanticism. Positivist thought. Contemporary trends.

29.577 Diplomatic History of Latin America (3)

History of the relations of the nations with each other, with nations of Europe, and with the United States, since independence. Principal attention to Argentina, Brazil, Chile, Mexico, Peru, Colombia, and Venezuela.

ASIA, AFRICA, COMPARATIVE HISTORY, IMPERIALISM**29.515 Period Studies in Non-Western History (3)**

Readings and lectures in selected periods of the history of selected areas of the non-Western world.

29.541 Topics in the History of Expansion and Imperialism (3)

Lectures and readings on selected aspects of the history of expansion and imperialism. Not offered in 1970-71.

29.545 Topics in Non-Western History I (3)

Lectures and readings on selected topics in the earlier period of Asian or African histories.

29.546 Topics in Non-Western History II (3)

Lectures and readings on selected topics in the more recent period of Asian or African histories.

29.549 Topics in Comparative History (3)

Lectures and readings on selected topics in comparative history. Not offered in 1970-71.

ARCHIVES**29.581 History of Archival Administration (3)**

The nature of archives and concepts of archival administration. Comparative survey of the history and present practice in the principal countries of the world, with special emphasis on the U.S.

29.582 Archival Administration: Modern Practice (3)

Evaluation, preservation, organization, storage, and use of archival materials. Design, installation, and management of archival systems. Application of automatic information handling systems and techniques

GRADUATE COLLOQUIA**29.620 Colloquium in European History: 1500-1799 (3)****29.621 Colloquium in European History Since 1799 (3)****29.625 Colloquium in British History to 1689 (3)** Not offered in 1970-71.**29.626 Colloquium in British History Since 1689 (3)** Not offered in 1970-71.**29.630 Colloquium in U.S. History to 1865 (3)****29.631 Colloquium in U.S. History Since 1865 (3)****29.670 Colloquium in Latin American History I (3)****29.671 Colloquium in Latin American History II (3)****GRADUATE SEMINARS****29.710 Research Seminar in European History (3)****29.715 Research Seminar in British History (3)****29.740 Research Seminar in the History of the U.S. (3)****29.750 Research Seminar in the History of Latin America (3)****29.770 Research Seminar in Archives Administration (3)****29.797 Master's Thesis Seminar (3-6)****29.799 Doctoral Dissertation Seminar (3-12)****SUMMER INSTITUTES****31.530 Institute of Genealogical Research (3)**

See page 234 for description under Institutes.

31.540 Institute of Archives Administration (3)

See page 234 for description under Institutes.

Historical Sociology—(see Sociology Department)**Honors Program****1.100 Honors English I (Course)**

Limited to first-year students whose registration is approved by the University Honors Board.

1.101 Honors English II (Course)

Limited to first-year students whose registration is approved by the University Honors Board.

1.399 Honors Colloquium (Course)

Enrollment is limited to students whose registration is approved by the Honors Board. Course topics are announced in the semester bulletin.

**International Business—
(See Business Administration)****International Labor—(See Economics; International Studies)****International Law and Organization—(See International Studies)****International Marketing—
(See Business Administration)****International Relations—
(See International Studies)****Institutes**

The American University pioneered in developing these specially designed University-level programs for further professional growth of men and women already basically educated by experience and previous education who wish to systematize and increase their knowledge, keep current, and be better prepared for tomorrow's developments.

This continuing education for practitioners has attracted registrants from all parts of the U.S. and from many foreign countries. Curricula for the management development programs are generally planned with the active cooperation of the profession or industry concerned. Institutes usually provide intensive instruction in a concentrated period of time to minimize leave from regular duties.

Where academic credit is available, the number of hours is indicated.

BUSINESS ADMINISTRATION

31.007 Annual Institute of Management for Appliance-TV Dealers (No Credit)

Offered for National Appliance and Radio-TV Dealers Association. Principles of management, merchandising, budgeting, store organization and operation, advertising and promotion, etc. First year, second year, graduate programs.

31.008 Institute on Tax Planning in Real Estate (No Credit)

Impact of federal income and other taxes on real estate operations, presented in simplest possible terms and directed toward needs of real estate dealers, investors, financial institutions and government officials dealing with real estate operations.

31.009 Institute on Termination of Government Contracts (No Credit)

Default and convenience termination principles and practices, for use by government officials and industry alike, presented by a professorial lecturer and guest speakers from government and industry.

31.010 Annual Executive Management Seminar for Institute of Industrial Launderers (No Credit)

Industry executive development program. First year, second year, graduate programs.

31.013 Institute on Problems of Fiduciary Obligations and Conflicts of Interest in the Modern Corporation (No Credit)

Consideration of rights, duties, and legal responsibilities of directors and officers of corporations; brokers, dealers, and underwriters; accountants; and bankers, in view of recent court and S.E.C. decisions.

31.020 Annual Physical Distribution and Traffic Management Institute (No Credit)

Management development program for present and prospective traffic executives. Role of traffic management in sales, purchasing, market development. Effective organization, operation of traffic department. Developments in carrier facilities, rates, regulation.

31.021 Annual Air Transport Management Institute (No Credit)

Intensive study of trends, problems of commercial, military air transport.

31.022 Annual Railroad Management Institute (No Credit)

Management information systems; marketing rail service; finance planning; automation and labor problems; co-operation of government and carriers in high-speed passenger operations.

31.024 International Symposium on Transportation Pricing (No Credit)

Leading world experts will discuss technology, pricing and competition; transport pricing; investment and financing; promotional and developmental pricing.

31.025 Annual Ocean Shipping and Foreign Trade Management Institute (No Credit)

Efficient shipping management, finance; administration; merchant marine policy. Foreign trade developments and opportunities for American shipping. For executives programming, directing operations.

31.066 Institute on Church Financial Management (No Credit)

Professional guidance and practical assistance in administering church monetary resources. Budgeting, accounting, fund raising, purchasing.

31.067 Institute on Church Family Financial Planning (No Credit)

Assistance to religious leaders in planning their own family financial affairs and in helping them qualify to teach groups, counsel individuals with problems of family finance. Management of personal monetary resources in context of religious faith and family solidarity. Institute of Life Insurance provides scholarships covering part cost of tuition and books.

31.068 Institute on Church Property Management (No Credit)

Specific advanced education for pastors, committee members, staff personnel whose responsibilities include administering real estate for religious purposes. Acquiring, insuring, using, maintaining property.

31.069 Institute on Church Office Management (No Credit)

Development of further skill in administering office functions of churches and related non-profit organizations. Planning and staffing, housing and equipping, communicating and scheduling, recording and reporting.

31.070 Institute on Church Personnel Relations (No Credit)

Responsible stewardship of human resources. Determining and describing staff positions; enlisting, assigning, and training staff personnel, both volunteers and employees; developing and maintaining staff morale.

CHEMISTRY DEPARTMENT**31.301 Cooperative Work-Study Program (No Credit)**

Work and study at cooperative research laboratories for six-month periods. Degree students wishing to take this program for credit should contact Dr. Doris Hadary for information. *Prerequisite:* permission of Dr. Hadary

31.401 Property Management I (formerly 11.481) (Course)

Management of commercial, residential property. Establishing rental values, neighborhood analysis, tenant selection, leasing, tenant and owner relationships. *Final examination may be substituted for regular course examination for Course No. 1 of the Institute of Real Estate Management.*

Undergraduates enrolled in 500 level courses receive one course unit.

31.501 Institute on Property Management II (formerly 11.582) (3)

Advanced analysis of multi-unit apartments, office buildings, shopping centers. Legal, tax, financing aspects. Regional analysis and urban redevelopment. Creative management. *Final examination may be substituted for regular course examination for Course No. 2 of The Institute of Real Estate Management. Prerequisite:* 31.401 or 11.481 or graduate standing

31.502 Institute on Business Finance for High School Teachers (3)

Seminars, discussions, lectures, field trips, to increase understanding of how business firms and individuals save, borrow, invest funds. Fellowships covering tuition, lunches, books provided by D. C. Savings and Loan League.

31.504 Institute on Real Estate Appraisal I (3)

Official Study Course No. 1 of the American Institute of Real Estate Appraisers.

Nature of real estate value; principles, mathematics of real estate appraising. *Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. 1. Prerequisite:* satisfactory completion of two real estate courses; or at least two years equivalent experience and permission of program director; or graduate standing.

31.505 Institute on Real Estate Appraisal II (3)

Case study Course II of the American Institute of Real Estate Appraisers. Urban properties: appraising procedures, capitalization techniques, case studies, problems. Credit applicable toward membership in Institute. *Prerequisite:* 31.504, Appraisal I of AIREA, or passing AIREA Examination I.

31.515 Recent Advances in Chemistry and Physics: Summer Institute for Secondary School Teachers (6)

Newer developments and their applicability to the teaching of chemistry and physics in secondary schools. Lectures, seminar meetings, laboratory work in the morning; supervised internships in laboratories of scientific organizations in the Washington area in the afternoon. Stipends and dependency allowances available under grant of the National Science Foundation to students chosen by the selection committee. Meets seven weeks. No tuition or fees charged to recipients of National Science Foundation stipends

For further information apply to Dr. Leo Schubert, Chemistry Department, The American University, Washington, D. C., 20016

31.517 Seminar in Teaching: Modern Programs in Elementary School Science—SCIS, COPES, AAAS (3)

New developments in elementary school science education program. Lectures in physical science. Stipends and dependency allowances available under a grant from the National Science Foundation. No tuition or fees charged to recipients of National Science Foundation stipends. Open to 30 elementary school teachers and 10 elementary school principals from the Montgomery county public school system.

For further information, apply to Dr. Leo Schubert, Chemistry Department, The American University, Washington, D. C., 20016

CORRECTIONAL ADMINISTRATION**31.555 Clinical Criminology I (2)**

To develop a frame of reference for a scientific approach to offenders and to crime control, to examine the evolution of an American philosophy of corrections, and set up clinical tools for the diagnosis and treatment of offenders.

31.556 Clinical Criminology II (2)

To analyze essentials in institutional climate, personnel, structure and methods as they relate to acculturation of prisoners in a democratic setting, and to examine correctional administration, classification, casework, constructive activities, security and discipline as they promote such acculturation in an authoritarian agency

31.557 Clinical Criminology III (2)

History, fundamental concepts, theory and nature of probation, parole, and other alternatives to incarceration with emphasis on the organization, policies and practices of state and federal systems.

31.558 Counseling and Guidance of Offenders (2)

Basic principles and techniques of counseling as applied specifically to correctional work through case conferences, individual counseling, group discussion, group action and planned participation with special emphasis on the elements of lay counseling; to examine types of counseling related to correctional work; and to develop a counseling process with appropriate counselor and counselee related elements.

31.559 Case Studies (1)

A series of individual case studies conducted by members of the institute under supervision to diagnose and plan treatment for actual offenders. *Prerequisite:* 31.555a.

CONTINUING EDUCATION**31.583 Environmental Systems Analysis I (Quadruple Course)****A Problems in Parts Per Million (Pesticide Pollution)****B Modules of Misery (Urban, Migrant, Rural Housing)**

Scientific investigations of human and natural resources in relation to problems of pollution resulting from misuse of these resources and from environmental insults.

Participation learning. Presentations of production-pollution problems by faculty, student participants, community leaders, government specialists, and industrial experts. Includes videos in the form of films, tapes, and demonstrations.

Dialogues, field inspection trips, workshops, library research and laboratory investigations. Participants enroll in Environmental Systems Analysis I to the complete EXCLUSION of any other courses during a given semester, and become totally involved with the production-pollution problems under analysis.

31.585 Intergovernmental Fiscal Relations (3)

Federal, state and local governmental public service financing; divisions of responsibility among levels of government for education, public assistance, transportation, health and hospitals. Sources and methods for financing; mechanisms for supplementing resources: taxation, revenue sharing proposals, grants-in-aid.

31.586 Problems of Race and Labor (3)

Examines current developments and the interrelationship of race and labor. Discussion and evaluation of economic, social and political trends and changes, with special reference to the race and labor problems in the nation's capital.

31.587 A Systems Approach to Task Analysis and Job Design (3)

Seminar workshop on systems analysis, task analysis and job design. For participants directly involved in or responsible for the technical aspects of job career design and implementation. Stresses methods of organizing knowledge to achieve organizational purposes for maximum effectiveness; functional job analysis as the way to understand what workers do to accomplish organizational objectives.

31.588 Problems in Manpower Policy Development (3)

Since the Area Redevelopment Act in 1961, the Manpower Development Act in 1962, and the Economic Opportunity Act of 1964, the federal government has been providing leadership in providing job training and jobs for the nation's unemployed and underemployed. Business and industry have cooperated with NAB-JOBS and other programs for hiring disadvantaged, with and without government subsidies. Federal, state and local government agencies are also beginning to remove barriers to employment. This course will discuss problems in manpower—from outreach and recruitment through counseling, pre-vocational and skill training to job development, placement and follow-up against the background of the successes and failures of the past decade's experience. Case histories of rural and urban manpower programs will be studied.

BUSINESS ADMINISTRATION

INSTITUTES IN INSURANCE

31.075 CPCU Insurance Institute (No credit)

31.076 Insurance Claims Adjusters Institute (No credit)

31.077 CLU Insurance Institute (No credit)

31.078 LUTC Insurance Institute (No credit)

31.079 General Insurance (No credit)

EDUCATION DEPARTMENT INSTITUTES

31.565 Institute: Counseling the Disadvantaged (3)

Eight-week workshop dealing with the issues and problems involved in counseling disadvantaged youth. Lectures, small group discussions, field trips and panel presentation. Designed for teachers, in-service counselors, counselor trainees and local, state and federal employees involved in counseling disadvantaged youth. Summer.

31.631 Institute on Reading and Learning Disabilities (3)

Guided experiences in remedial reading: diagnosis and correction of learning difficulties with children and youth. To be taken in conjunction with 21.644.

HISTORY

31.530 Institute of Genealogical Research (3)

The course is designed to provide both theoretical and practical training in genealogical research. Applications will be accepted from persons in archival establishments, libraries and historical societies; from those engaged or interested in specialized research projects, genealogical or related work; and from historians, writers, or others whose training or background fit them for the course.

31.540 Institute of Archives Administration (3)

To present theory, principles, and techniques of archives administration for modern documentary material of both public and private origin.

Interdisciplinary Courses

75.120-121 Selected Human Problems (Course)

For description see History Department listing, page 00.

75.200-201 American Civilization I & II (Course, Course)

75.491 American Civilization III (Course)

75.506-M Development of Scientific Thought I (3)

75.507-M Development of Scientific Thought II (1)

75.523 Colloquium on France: After De Gaulle (3)

75.533 Colloquium on Germany: Foreign Policy of the Federal Republic (3)

75.543 Colloquium on the Soviet Union (3)

75.553 Colloquium on Latin America (3)

75.572 History of the International Labor Movement (3)

Insurance—(See Business Administration)

International Studies

Undergraduates enrolled in 500 level courses receive one course unit

AMERICAN CIVILIZATION

33.403 American Civilization: Senior Seminar (Course)

Topics vary. May be taken more than once for credit if the content is non-duplicating.

AREA STUDIES

AFRICA

33.424 Introduction to Africa (Course)

An interdisciplinary approach, including introduction to the geography, history, social, economic, political and international features of Africa

33.624 Problems of Contemporary Africa (3)

33.645 Labor in an Area; Africa South of the Sahara (3)

33.497, .697, .498, .698 Seminar on Africa (6) or (Course and Half)

33.785 Seminar on Africa (3)

EASTERN EUROPE

33.432, .532, .632 International Relations of East-Central Europe (3) or (Course)

Prerequisite: 33.200 when taught at undergraduate level.

33.789 Seminar on Eastern Europe (3)

FAR EAST

33.560 Cultural Factors in East-West Relations (3)

33.428, .528, .628 The Far East in World Affairs (3) or (Course)

33.664 Ideological Aspects of Chinese Communism (3)

33.488, .688, .689 Seminar on the Far East (6) or (Course and Half)

33.715 Seminar: Role of the Military in Modern China (3)

33.481, .781 Seminar on China (3) or (Course)

A study of modern China

33.779 Seminar: Far East Culture and Society (3)

33.782 Seminar on Japan (3)

33.782 Seminar on Japan (3)

33.787 Seminar on Sino-Soviet Relations (3)

LATIN AMERICA

33.414 Introduction to Latin America (Course)

33.533 Brazil in World Politics (3)

75.553 Colloquium on Latin America (3)

33.429, .529, .629 International Relations of Latin America (3) or (Course)

33.645 Labor in an Area: Latin America (3)

33.653 Agrarian Problems: Latin America (3)

33.484, .684, .485, .685 Seminar on Latin America (3) or (Course)

33.784 Seminar on Latin America (3)

MIDDLE EAST

33.410 Introduction to the Middle East (Course)

33.425, .525, .625 International Relations of the Middle East (3) or (Course)

33.669 Nationalism in the Middle East (3)

33.786 Seminar on the Middle East (3)

33.480, .680, .481, .681 Seminar on the Middle East (6) or (Course and Half)

SOUTH AND SOUTHEAST ASIA

33.415 Introduction to South Asia (Course)

- 33.417 **Introduction to Southeast Asia (Course)**
- 33.426, .526, .626 **South Asia in World Politics (3) or (Course)**
- 33.427, .527, .627 **International Relations of Southeast Asia (3) or (Course)**
- 33.645 **Labor in an Area: South and East Asia (3)**
- 33.653 **Agrarian Problems: East and South Asia (3)**
- 33.486, .686 **Seminar on South and Southeast Asia (3) or (Course)**
- 33.788 **Seminar on South and Southeast Asia (3)**

SOVIET UNION

- 33.412 **Introduction to Russia (Course)**
- 33.422, .522, .622 **Soviet Russia in World Affairs (3) or (Course)**
- 33.482, .682, .483, .683 **Seminar on Soviet Union (6) or (Course and Half)**
- 75.543 **Colloquium on the Soviet Union**
- 33.721 **Seminar on Soviet Foreign Policy (3)**
- 33.783 **Seminar on the Soviet Union (3)**
- 33.787 **Seminar on Sino-Soviet Relations (3)**

WESTERN EUROPE

- 33.150-151 **Introduction to the Western Tradition I, II (Course, Course)**

This two-semester sequence serves as a basic introduction to Western European intellectual history and provides a frame of reference for later studies of the dynamics of modernization and the transition from traditional to secular society.

- 33.420, .520, .620 **International Relations of Western Europe (3) or (Course)**
- 75.523 **Colloquium on France in World Affairs (3)**
- 33.645 **Labor in an Area: Western Europe (3)**
- 33.693 **Western Europe: Common Elements (3)**

- 33.694 **Western Europe: Germany as Lead Country (6)**
- 33.695 **Western Europe: Great Britain as Lead Country (6)**
- 33.696 **Western Europe: France as Lead Country (6)**

INTERNATIONAL RELATIONS

GENERAL

- 33.200 **Introduction to World Politics I (Course)**

Concepts and principles. A survey emphasizing the nature of interstate relations, factors influencing those relations, and the causes and consequences of international instability. Particular attention is paid to the sources and types of international conflict and to the techniques of conflict resolution.

- 33.201 **Historical Patterns of Political Development: World Politics II (Course)**

Application of concepts and theories discussed in 33.200 to specific phases in the development of modern world politics.

- 33.302 **Comparative Foreign Policy I (Course)**

Comparative analysis of the foreign policies of the United States and the Soviet Union with emphasis on the period since World War II. Principle focus is on the bilateral relationship between the two powers; includes consideration of the role of China in the foreign policies of each. *Prerequisite:* 33.200.

- 33.303 **Comparative Foreign Policy II (Course)**

Comparative analysis of the formulation and implementation of foreign policy in the United Kingdom, France, West Germany and Japan. *Prerequisite:* 33.200.

- 33.304 **Comparative Foreign Policy III (Course)**

Comparative analysis of the formulation and implementation of foreign policy in selected developing nations. *Prerequisite:* 33.200.

- 33.350 **Introduction to the Non-Western World (Course)**

Builds upon the basic conceptual framework developed in Introduction to the Western Tradition and provides the student with the tools for in-depth study of non-Western areas.

- 33.390 **Readings in International Studies**
- 33.490 **Independent Project in International Studies**

33.491 Seminar on Theory of International Relations (Course)

Selected topics. Students may repeat if topics are different. *Prerequisite:* 2 SIS courses.

33.496 Senior Honors Research Seminar (Course)

Approaches to comparative politics. *Prerequisite:* By invitation.

33.590 Readings in International Studies**33.690 Independent Project in International Studies.****33.797 Master's Thesis Seminar (3-6)****33.799 Doctoral Dissertation Seminar (3-12)****CONTEMPORARY INTERNATIONAL RELATIONS****33.521 Comparative Communist Party Systems (3)**

Emphasis on non-governing communist parties.

33.450, .650 Contemporary International Politics (3) or (Course)

Examination and analysis of the course of international politics since the end of World War II. Topics include the Cold War, the non-Western revolution, the industrial, technological and military revolutions, and the changing role of international organizations. *Prerequisite:* 33.200 when taught at under-graduate level.

75.610 Contemporary Ideological Issues (3)**75.631 The Dynamics of Revolution (3)**

Background and causes of revolution; the assessment and prediction of revolutionary threat or potential. Types and stages of revolution; techniques of revolutionary action. Planning, organization, and conduct of revolution as a conflict instrument. Prevention and suppression of revolution.

33.672 Seminar on Unconventional Warfare (3)

Examination of modern unconventional war; its impact on the underdeveloped nations and on the conduct of United States foreign policy; political and ethical considerations.

33.700 Seminar on Contemporary International Relations (3)

Selected topics.

DIPLOMACY AND FOREIGN POLICY**33.275 American Culture and Politics (Course)**

Emphasizes the relationship between United States foreign policy and its socio-economic and cultural roots.

33.430, .630 United States Foreign Policy (3) or (Course)

The development of the diplomatic process including the role of the President and the Department of State in foreign affairs. Significance of international institutions in American diplomacy. *Prerequisite:* 33.200 when taught at undergraduate level.

33.563 Problem Papers in American Diplomacy (3)

Role playing course in American diplomacy (adjustable to meet needs of foreign students). Each student is assigned the role of a desk officer for a country or group of countries or for an international organization or agency. The work consists of the preparation of typical State Department (Foreign Office) and foreign service documents, including briefing papers, position papers, political and economic reports, speech drafts, press statements, public affairs guidance, group reports, and national policy papers.

33.516, .616 International Relations Between the Wars (3)

Diplomacy of 1919-1939 with particular reference to Europe. Development and breakdown of the French system; collective security, Fascism, Nazism, the Soviet Union, and the role of the U. S. in European affairs.

33.517, .617 Diplomacy of World War II (3)

History of the diplomatic front during the War. Groundwork of the postwar settlement.

33.652 Seminar on National Security Policy (3)

A broad examination of the principal elements of national security policy, defense planning arms controls. The world setting. Roles of Executive Branch and Congress in policy making, implementation and control. Civilian-military equation, military doctrine, strategic intelligence. Principal elements of military strategy. Operative economic factors and forces.

33.670-671 Seminar: Comparative Foreign Policy Formation I, II (3, 3)

Instruments and process of decision making in foreign policy of selected nations approached comparatively.

75.673 Seminar: Foreign Policy Formation in the United States (3)

Conduct and control of foreign policy; emphasis on administrative and policy problems of the United States and selected foreign countries; impact of foreign policy in domestic and international field; State Department organization and its relation to other departments. Congress, the President and public opinion. Members may select key problems showing the making and control in relation to strategic, military, fiscal and economic practice. *Prerequisite:* a course in American Government.

33.679 Seminar and Workshop in Intelligence Research and Analysis (6)**INTERNATIONAL COMMUNICATION****33.439, .639 Foundations of International Communications (3) or (Course)**

Concepts, problems, and techniques of international communication in terms of individual and group behavior as represented in social psychology and allied disciplines.

75.633 Psychological and Cultural Bases of International Politics (3)

Phenomena and problems of international politics in terms of underlying psychological and cultural forces: theory of international politics from behavioral-science points of view.

75.638 Information and Persuasion in Cross-Cultural Contacts (3)

A comparative examination of the theory and practice of effective international communication techniques as applied by government and non-government organizations and individuals. *Prerequisite:* 75.439 or 75.639 and permission.

75.650 International Political Communication (3)

Psychological aspects of foreign policy and role of communication. Problems presented by use of propaganda media of international communication in the service of national policy.

75.675 Political Communication and Foreign Policy: Systems of Support (3)

Cultural, economic, and technical programs that governments use to create a favorable background for foreign policy aims. Conducted along workshop lines. One of the course objectives is to publish papers based on individual and group research.

INTERNATIONAL LAW

33.440 Introduction to International Law and Organization (Course)

Nature, sources and development of international law and its most important substantive elements. Study of the organizational system; processes and institutionalized forms of international order. Relationship between international law and international organization. *Prerequisite:* 33.200.

33.600 Introduction to International Law (3)

Nature, sources and development of international law and its most important substantive elements. Emphasis on the place of international law in relation to other international studies.

33.661 Seminar: History and Theory of International Law (3)

Development of international law from the earliest times. Leading theories of the sources, origin and binding force of international law. Study and discussion of the classic publicists. Individual research projects. *Prerequisite:* international law and/or organization.

33.662 Seminar: Contemporary Problems in International Law (3)

Contemporary problems: individual responsibility under international law; control of outer space; changing concepts of the territorial seas; relationship of international law and international organization. Individual research projects. *Prerequisite:* International law and/or organization.

33.770 Seminar on International Law (3)

Selected problems in international law including international, constitutional, administrative, and criminal law and international legislation. *Prerequisite:* 6 hours in international law and/or organization.

INTERNATIONAL ORGANIZATION

33.440 (See same number listed under INTERNATIONAL LAW for course description.)

33.640 Introduction to International Organization (3)

Organizational system of the international community; processes and institutionalized forms of international order.

33.451, .651 United Nations Organization and Functions (3) or (Course)

The Charter, origins, functions, operation of the principal organs with emphasis upon the General Assembly and the Security Council, admission of members, obligation of membership. *Prerequisite:* 33.200 when taught at undergraduate level.

75.641 Seminar on International Administration (6)

Nature and history of international administration, and its meaning within the study of international relations and organization. Theory and practice of functionalism. Secretariat structure and operation, emphasis upon the League of Nations. Special problems of administration at the international level. *Prerequisite:* at least one course in international organization or public administration, or permission.

33.652 United Nations Economic and Social Operations (3)

Theoretical and practical aspects of the economic and social functions of the United Nations system including the specialized agencies. Political, economic and social forces that have shaped the system, the general pattern of activity in major substantive areas, including economic development, trade and social measures; problems concerning both national and international decision-making processes; future development of these programs.

33.654 Seminar: Organization of American States (3)

Organization and operation of the Organization of American States and affiliated organizations. Inter-American security and peace system. Relationship of the system to the United Nations.

33.655 The United States and International Organization (3)

Political science of U.S. participation in international organization. Background and consequences of expanded U.S. participation. Executive and Congressional roles in development and execution of U.S. international organization policies and activities. Examination of selected problem areas such as financing, international administration, economic and social development, politico-military action. Prospects and problems of development.

33.658 Seminar on Regional Organizations: Western Europe (3)

Survey of factors responsible for the trend toward European organization and integration; examination of the more important institutions of the European community: ECSC, EEC, WEU, Euratom, etc. *Prerequisites:* Introduction to Economics or International Economics, Modern European History.

33.675 Seminar on the United Nations (3-6)

Selected problems on the United Nations and specialized agencies.

33.750 Seminar on International Organization (3)

Nature of organization and administration at the international level, with special reference to existing international agencies. Individual research and written reports.

THEORY OF INTERNATIONAL RELATIONS**33.460 Behavioral Approaches to International Politics (Course)**

Prerequisite: 33.200.

33.519 Values and Objectives in Foreign Policy (3)

Role of ethical considerations in foreign policy. Meanings of national interest. Power, reason, and value as determinants. *Prerequisite:* 6 relevant hours in either diplomatic history, ethics and/or international law.

75.569 Philosophic and Religious Aspects of World Relations (3)

An inquiry into the philosophical and religious issues raised and presupposed by present day world conditions. *Prerequisite:* Introductory course in philosophy or political theory and a course in international relations.

33.610 International Relations and Comparative Politics: Methods and Approaches (3)

An introduction to the methodology of the field.

33.612 Seminar: Topics in Political Thought (3)

Intensive investigation of topics concerning concepts, movements, ideologies and significant theorists.

33.665 Revolutionary Theories of World Politics (3)**33.667 Theory of International Relations (3)**

A study of the various theories of international relations.

33.668 Liberal Theories of World Politics (3)

A comparative analysis of the views on world politics of some twelve major liberal statesmen and philosophers of the 19th and 20th centuries. The focus will be on the light their doctrines cast on the problems of achieving a liberal world order.

33.710 Seminar on Theories of International Relations (3)

An examination and analysis of the various trends and theories of international relations.

33.711 Seminar: International Relations and Comparative Politics: Methods and Approaches (3)**INTERNATIONAL LABOR****33.641-642 World Labor and Contemporary International Relations I, II (3, 3)**

Evaluation of the influence of labor's new political and economic status on world affairs. Comparative labor ideologies and other labor issues in key areas of the world affecting international relations.

75.672 History of the International Labor Movement (3)

Development of international labor movement from mid-19th century to the present; origins, ideologies, aims, impact on world events, and structure of Socialist, Christian, Anarchist, and Communist Internationals.

75.676 Social and Labor Problems of Underdeveloped Areas (3)

Role of labor in new countries and dependent areas. labor's political orientation, contributions to the formation of new nations, relationship to new governments and attitudes toward new social and economic objectives; problems in recruiting leaderships and in applying trade unionism; labor's impact on the pattern and pace of industrialization.

WORLD HUMAN NEEDS**33.543, .544 World Human Needs I, II (3, 3)**

An interdisciplinary approach to world human needs; social, economic, political and moral implications of growing chasm between rich and poor nations; world population growth, resources, environmental pollution; differences of opportunity for food, health, housing, education, employment, social security, migration, brain-drain; implications of resentment and violence potentials; priority needs; problems and possibilities of international planning.

WASHINGTON INTERNATIONAL SEMESTER**33.493 Seminar: Washington in World Affairs (Course)****33.494 Washington International Semester Research Project (Course)**

Both 33.493 and 33.494 are required for advanced students enrolled from cooperating institutions, through formal inter-institutional agreements of this program. Observation and study of governmental, international and private activities which contribute to the United States' posture in world affairs. The research project is the requirement of an individual analytical report, prepared under the guidance of the program directors. *Prerequisite:* Selection.

Investment Analysis—(See Business Administration)**Journalism—(See Communication)****Land Planning—(See Business Administration)**

Language and Area Studies— (See International Studies; Languages)

Languages and Linguistics

Academic credit may not be earned for language courses below the level already completed by the student elsewhere, including high school.

Students will be granted language credit for the first semester of an elementary or intermediate language course only upon the successful completion of the second semester. In all language courses, students are expected to do individual language laboratory work outside of class.

37.175 *Arabic, Elementary I (Course)

Emphasis on audio-lingual skills. Drills on the main features of classical Arabic structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.176 *Arabic, Elementary II (Course)

Continuation of 37.175. *Prerequisite:* 37.175 or equivalent.

37.185 *Chinese, Elementary I (Course)

Emphasis on audio-lingual skills. Drills on Mandarin structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.186 *Chinese, Elementary II (Course)

Continuation of 37.185. *Prerequisite:* 37.185 or equivalent.

37.100 Czech, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Basic vocabulary. Five clock hours per week of class instruction.

37.101 Czech, Elementary II (Course)

Continuation of 37.100. *Prerequisite:* 37.100 or equivalent.

37.200 Czech, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.101 or equivalent.

37.201 Czech, Intermediate II (Course)

Continuation of 37.200. *Prerequisite:* 37.200 or equivalent.

37.120 French, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Five clock hours per week of class instruction.

37.121 French, Elementary II (Course)

Continuation of 37.120. *Prerequisite:* 37.120 or equivalent.

37.220 French, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.121 or equivalent.

37.221 French, Intermediate II (Course)

Continuation of 37.220. *Prerequisite:* 37.220 or equivalent.

37.222 French, Intermediate for Research I (Course)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college French or equivalent.

37.223 French, Intermediate for Research II (Course)

Continuation of 37.222. *Prerequisite:* 37.222 or equivalent.

37.322 French Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college French or equivalent.

37.323 French Conversation and Composition II (Course)

Continuation of 37.322. *Prerequisite:* 37.322 or equivalent.

37.396 French Topics (Course)

Lecture course with emphasis on selected topics. Content changes. Course may be taken for credit more than once. *Prerequisite:* two years of college French or equivalent.

37.420 French Civilization I (Course)

Selected cultural topics. Emphasis on contemporary scene. *Prerequisite:* three years college French or equivalent.

37.421 French Civilization II (Course)

Selected cultural topics. Emphasis on historical development. *Prerequisite:* three years of college French or equivalent.

37.422 French Conversation and Composition III (Course)

Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. *Prerequisite:* 37.323 or equivalent.

*In 1970-71 these courses will be available only through the Consortium. Arabic will be available at Georgetown; Chinese will be available at both Georgetown and George Washington.

37.423 French Conversation and Composition IV (Course)

Continuation of 37.422. *Prerequisite:* 37.422 or equivalent

37.424 French Pro-Seminar (Course)

Discussion group with emphasis on selected topics and individual problems, in French. Course may be taken for credit more than once. *Prerequisite:* three years college French or equivalent

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.131 German, Elementary II (Course)

Continuation of 37.130. *Prerequisite:* 37.130 or equivalent

37.230 German, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.131 or equivalent.

37.231 German, Intermediate II (Course)

Continuation of 37.230. *Prerequisite:* 37.230 or equivalent.

37.232 German, Intermediate for Research I (Course)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college German or equivalent.

37.233 German, Intermediate for Research II (Course)

Continuation of 37.232. *Prerequisite:* 37.232 or equivalent.

37.396 German Topics (Course)

Lecture course with emphasis on selected topics. Content changes. Course may be taken for credit more than once. *Prerequisite:* two years of college German or equivalent.

37.332 German Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college German or equivalent.

37.333 German Conversation and Composition II (Course)

Continuation of 37.332. *Prerequisite:* 37.332 or equivalent.

37.430 German Civilization I (Course)

A survey of German civilization: beginning of the Christian era to the end of the 17th century, in German. *Prerequisite:* three years college German or equivalent.

37.431 German Civilization II (Course)

Survey of German civilization from the beginning of the 18th century to the present time, in German. *Prerequisite:* three years college German or equivalent.

37.432 German Conversation and Composition III (Course)

Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. *Prerequisite:* 37.333 or equivalent.

37.433 German Conversation and Composition IV (Course)

Continuation of 37.432. *Prerequisite:* 37.432 or equivalent.

37.434 German Pro-Seminar I (Course)

Discussion group with emphasis on selected topics and individual problems, in German. Course may be taken for credit more than once. *Prerequisite:* three years college German or equivalent.

37.155 Hebrew, Elementary Modern I (Course)

Presentation and drill of Hebrew structure. Basic vocabulary. A five clock-hour per week semi-intensive language course; emphasis on the audio-lingual skills.

37.156 Hebrew, Elementary Modern II (Course)

Continuation of 37.155. *Prerequisite:* 37.155 or equivalent.

37.255 Hebrew, Intermediate Modern I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.156 or equivalent.

37.256 Hebrew, Intermediate II (Course)

Continuation of 37.255. *Prerequisite:* 37.255 or equivalent.

37.113 Hindi, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on Hindi structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.114 Hindi, Elementary II (Course)

Continuation of 37.113. *Prerequisite:* 37.113 or equivalent.

37.213 Hindi, Intermediate I (Course)

Emphasis on further development of audio-lingual skills and on Hindi structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Hindi or equivalent.

37.214 Hindi, Intermediate II (Course)

Continuation of 37.213. *Prerequisite:* 37.213 or equivalent.

37.313 Hindi Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Hindi or equivalent.

37.313 Hindi Conversation and Composition II (Course)

Continuation of 37.395. *Prerequisite:* 37.395 or equivalent.

37.102 Hungarian, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on structure. Inductive presentation of grammar. Active vocabulary. Five clock hours per week of class instruction.

37.103 Hungarian, Elementary II (Course)

Continuation of 37.102. *Prerequisite:* 37.102 or equivalent.

37.202 Hungarian, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.103 or equivalent.

37.203 Hungarian, Intermediate II (Course)

Continuation of 37.202. *Prerequisite:* 37.202 or equivalent.

37.115 Indonesian, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on Indonesian structure. Inductive presentation of grammar. Active vocabulary. Introduction to reading and writing. Five clock hours per week of class instruction.

37.116 Indonesian, Elementary II (Course)

Continuation of 37.115. *Prerequisite:* 37.115 or equivalent.

37.215 Indonesian, Intermediate I (Course)

Emphasis on further development of audio-lingual skills and on Indonesian structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Indonesian or equivalent.

37.216 Indonesian, Intermediate II (Course)

Continuation of 37.215. *Prerequisite:* 37.215 or equivalent.

37.315 Indonesian Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Indonesian or equivalent.

37.316 Indonesian Conversation and Composition II (Course)

Continuation of 37.315. *Prerequisite:* 37.315 or equivalent.

37.165 Japanese, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on Japanese structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.166 Japanese, Elementary II (Course)

Continuation of 37.165. *Prerequisite:* 37.165 or equivalent.

37.265 Japanese, Intermediate I (Course)

Emphasis on further development of audio-lingual skills and on Japanese structure. Further development of reading

and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Japanese or equivalent.

37.266 Japanese, Intermediate II (Course)

Continuation of 37.265. *Prerequisite:* 37.265 or equivalent.

37.365 Japanese Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Japanese or equivalent.

37.366 Japanese Conversation and Composition II (Course)

Continuation of 37.365. *Prerequisite:* 37.365 or equivalent.

37.107 **Korean, Elementary I (Course)

Emphasis on audio-lingual skills. Drills on Korean structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.108 **Korean, Elementary II (Course)

Continuation of 37.107. *Prerequisite:* 37.107 or equivalent.

37.300 Language, Introduction to (Course)

The nature of language. The field of linguistics. Languages of the world. Linguistic terminology. Relation of linguistics to other disciplines.

37.140 Russian, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.141 Russian, Elementary II (Course)

Continuation of 37.140. *Prerequisite:* 37.140 or equivalent.

37.240 Russian, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* 37.141 or equivalent.

37.241 Russian, Intermediate II (Course)

Continuation of 37.240. *Prerequisite:* 37.240 or equivalent.

37.242 Russian, Intermediate for Research I (Course)

Development of reading and comprehension skills. Text material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college Russian or equivalent.

** Not available 1970-71.

37.243 Russian, Intermediate for Research II (Course)

Continuation of 37.242. *Prerequisite:* 37.242 or equivalent.

37.342 Russian Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Russian or equivalent.

37.343 Russian Conversation and Composition II (Course)

Continuation of 37.342. *Prerequisite:* 37.342 or equivalent.

37.396 Russian Topics (Course)

Lecture course with emphasis on selected topics. Content changes. Course may be taken for credit more than once. *Prerequisite:* two years of college Russian or equivalent.

37.440 Russian Civilization I (Course)

Russian civilization from Kiev Rus period to the 1860's. in Russian. *Prerequisite:* three years college Russian or equivalent.

37.441 Russian Civilization II (Course)

Russian civilization from the 1860's to the present time. in Russian. *Prerequisite:* three years college Russian or equivalent.

37.442 Russian Conversation and Composition III (Course)

Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. *Prerequisite:* 37.343 or equivalent.

37.443 Russian Conversation and Composition IV (Course)

Continuation of 37.442. *Prerequisite:* 37.442 or equivalent.

37.444 Russian Pro-Seminar (Course)

Discussion group with emphasis on selected topics and individual problems. in Russian. Course may be taken for credit more than once. *Prerequisite:* three years college Russian or equivalent.

37.150 Spanish, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction.

37.151 Spanish, Elementary II (Course)

Continuation of 37.150. *Prerequisite:* 37.150 or equivalent.

37.250 Spanish, Intermediate I (Course)

Audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction. *Prerequisite:* one year college Spanish or equivalent.

37.251 Spanish, Intermediate II (Course)

Continuation of 37.250. *Prerequisite:* 37.250 or equivalent.

37.252 Spanish, Intermediate for Research I (Course)

Development of reading and comprehension skills. Test material focused on natural and social sciences. Guided self-learning project utilizing programmed instructional materials. *Prerequisite:* one year college Spanish or equivalent.

37.253 Spanish, Intermediate for Research II (Course)

Continuation of 37.252. *Prerequisite:* 37.252 or equivalent.

37.352 Spanish Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Spanish or equivalent.

37.353 Spanish Conversation and Composition II (Course)

Continuation of 37.352. *Prerequisite:* 37.352 or equivalent.

37.396 Spanish Topics (Course)

Lecture course with emphasis on selected topics. Content changes. Course may be taken for credit more than once. *Prerequisite:* two years of college Spanish or equivalent.

37.450 Spanish (Hispanic) Civilization I (Course)

Hispanic civilization from Roman times to the end of the 17th century. in Spanish. *Prerequisite:* three years college Spanish or equivalent.

37.451 Spanish (Hispanic) Civilization II (Course)

Hispanic civilization from the 18th century to the present. in Spanish. *Prerequisite:* three years college Spanish or equivalent.

37.452 Spanish Conversation and Composition III (Course)

Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. *Prerequisite:* 37.353 or equivalent.

37.453 Spanish Conversation and Composition IV (Course)

Continuation of 37.452. *Prerequisite:* 37.452 or equivalent.

37.454 Spanish Pro-Seminar (Course)

Discussion group with emphasis on selected topics and individual problems. in Spanish. Course may be taken for credit more than once. *Prerequisite:* three years college Spanish or equivalent.

37.109 **Tamil, Elementary I (Course)

Emphasis on audio-lingual skills. Drills on Tamil structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.110 **Tamil, Elementary II (Course)

Continuation of 37.109. *Prerequisite:* 37.109 or equivalent.

37.105 Thai, Elementary I (Course)

Emphasis on audio-lingual skills. Intensive drills on Thai structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.106 Thai, Elementary II (Course)

Continuation of 37.105. *Prerequisite:* 37.105 or equivalent.

37.205 Thai, Intermediate I (Course)

Emphasis on further development of audio-lingual skills and on Thai structure. Further development of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* one year college Thai or equivalent.

37.206 Thai, Intermediate II (Course)

Continuation of 37.205. *Prerequisite:* 37.205 or equivalent.

37.305 Thai Conversation and Composition I (Course)

Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. *Prerequisite:* two years of college Thai or equivalent.

37.306 Thai Conversation and Composition II (Course)

Continuation of 37.305. *Prerequisite:* 37.305 or equivalent.

37.111 Vietnamese, Elementary I (Course)

Emphasis on audio-lingual skills. Drills on Vietnamese structure. Inductive presentation of grammar. Active vocabulary. Introduction to the writing system. Five clock hours per week of class instruction.

37.112 Vietnamese, Elementary II (Course)

Continuation of 37.111. *Prerequisite:* 37.111 or equivalent.

37.211 Vietnamese, Intermediate I (Course)

Emphasis on further development of audio-lingual skills and on Vietnamese structure, of reading and writing skills, and introduction to the culture. Five clock hours per week of class instruction. *Prerequisite:* 37.112 or equivalent.

37.212 Vietnamese, Intermediate II (Course)

Continuation of 37.211. *Prerequisite:* 37.211 or equivalent.

Independent Study in Languages and Linguistics is available under the general regulations governing these courses as described on page 31.
Courses available are:

37.390 Readings in Languages and Linguistics

37.490 Independent Project in Languages and Linguistics

37.590 Readings in Languages and Linguistics

37.690 Independent Project in Languages and Linguistics

Advanced Courses

Prerequisite for admission to all advanced courses: permission of the instructor unless otherwise specified. Undergraduate students in 500 level courses receive one course unit.

37.500 Principles of Linguistics I (3)

Introduction to the scientific study of language, with emphasis on structural linguistics.

37.501 Principles of Linguistics II (3)

Introduction to the study of language change, classification of languages, and linguistic reconstruction. Readings, problems, and class discussions.

37.502 Linguistic Structure I: Phonetics and Phonemics (3)

Phonetics and phonemics. Techniques of describing speech sounds in terms of articulatory movements and formulas. Practice in hearing and transcribing phonetic sounds, using tape recordings. Basic premises underlying phonemic analysis and practical procedures for arriving at the phonemes of a language.

37.503 Linguistic Structure II: Morphology and Syntax (3)

Problems in the analysis and description of morphological data. Introduction to transformational generative grammar.

37.505 History of Linguistics (3)

Linguistic theories from the Greeks to modern times. Great linguists and their schools of thought. Development of American linguistics.

37.507 Applied Linguistics: Methodology of Foreign Language Teaching (3)

Comparison of various methods of language teaching. Principles underlying the structural method of language teaching. Application of linguistics in the preparation of teaching materials. Audio-visual aids.

37.508 Teaching English as a Foreign Language (3)

Methods of teaching English as a foreign language; development of teaching materials; discussion of textbooks; lesson planning; problems of the foreign student. Portion devoted to practical work; writing materials and presenting them orally for class critique.

37.509 Theory and Construction of Grammars (3)

Emphasis is on the construction of grammars as defining devices to characterize languages. Automata equivalent to various types of grammars are considered, as well as mathematical relations among grammars. Types of languages considered are mathematical, logical, computational and two-dimensional, in addition to natural language.

37.520 French Structure (3)

A contemporary and historical analysis of the phonology, morphology and syntax of French.

37.521 History of the French Language (3)

Study of the French language through various stages of its development.

37.522 French Stylistics (3)

Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.523 French Romanticism (3)

Development of the Romantic movement in early 19th century French literature. Analysis of sentiments of the romanticists.

37.524 French Realism (3)

19th century French literature from decline of romanticism to turn of century. Periods of expression known as realism, naturalism, and symbolism.

37.525 Contemporary French Literature (3)

Course content changes each semester; emphasis on genre, movement or major writers. Course may be taken for credit more than once.

37.526 The French Renaissance (3)

Renaissance and humanistic movement in France in the 16th century. Rabelais, the *Pleiadé*, Ronsard, Montaigne.

37.527 Eighteenth Century France: Men and Ideas (3)

Attitudes and ideas of the age of enlightenment as reflected in Montesquieu, Diderot, the Encyclopedists, Voltaire, and Rousseau.

37.530 German Structure and Problems in Teaching German (3)

Problems in a descriptive analysis of the German structure, and the impact of new linguistic findings on the practice of teaching German.

37.531 History of the German Language (3)

Historic development of the German language. Scholarly methods applied in diachronic linguistics.

37.532 German Stylistics (3)

Style in general and German style features in particular. To familiarize the student in theory with what constitutes style levels in non-artistic usage and also to make him recognize the elements of style in literary works of art.

37.533 Topics, Motifs and Conventions in German Literature (3)

Understanding and application of modern theoretical aspects reflecting present day thinking in German literary criticism.

37.535 German Literature in the Middle Ages (3)

Medieval literature in Germany from approximately 900 to 1400 A.D. Covers a period vital to the understanding of German intellectual development.

37.536 German Literature of the 17th and 18th Century (3)

Content alternates between (a) Barock period, and (b) Lessing and his time. Course may be taken for credit twice.

37.537 Classical Period in German Literature (3)

Content alternates between (a) Goethe and his time, and (b) Schiller and his time. Course may be taken for credit twice.

37.538 Nineteenth Century German Literature (3)

From romanticism to realism and subsequent developments to the beginning of World War I. Selected representatives such as Heine, Keller, Storm, Stifter, Fontane, the naturalists.

37.539 Contemporary German Literature (3)

Content changes each semester; emphasis on (a) novel, or (b) drama, or (c) poetry. Course may be taken for credit more than once.

37.540 Russian Structure (3)

Contemporary and historical analysis of the phonology, morphology, and syntax of Russian.

37.541 History of the Russian Language (3)

Russian language through various stages of its development.

37.542 Russian Stylistics (3)

Word choice and word groupings. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.543 Russian Classics (3)

Content changes each semester; emphasis on life and works of major writers. Course may be taken for credit more than once.

37.544 Soviet Literature (3)

Content changes each semester; emphasis on one major genre or period of Soviet literature. Course may be taken for credit more than once.

37.545 Russian Drama (3)

Content changes each semester; emphasis on a major period or works of one outstanding Russian playwright. Course may be taken for credit more than once.

37.546 Russian Poetry (3)

Content changes each semester; emphasis on a major period or works of one outstanding Russian poet. Course may be taken for credit more than once.

37.550 Spanish Structure (3)

Contemporary and historical analysis of the phonology, morphology, and syntax of Spanish. In English.

37.551 History of the Spanish Language (3)

Spanish language through various stages of its development in Europe and America.

37.552 Spanish Stylistics (3)

Word choice and word groupings. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.553 Spanish Classics (3)

Content changes each semester; emphasis on a period of Spanish literature from the medieval epic to the generation of 1898. Course may be taken for credit more than once.

37.554 Classics of Latin American Literature (3)

Content changes each semester; emphasis on a period of Spanish American literature from the colonial era to the present time. Course may be taken for credit more than once.

37.555 Spanish Literature After the Civil War (3)

Content changes each semester; emphasis on a major contemporary writer. Course may be taken for credit more than once.

37.556 Twentieth Century Latin American Novel (3)

Content changes each semester; emphasis on a major contemporary novelist. Course may be taken for credit more than once.

37.595 Linguistic Introduction to Sanskrit I (3)

Primary stress on learning the linguistic structure of Sanskrit and on developing reading skill. The position of Sanskrit within the Indo-European family of languages. Historical development of Sanskrit.

37.596 Linguistic Introduction to Sanskrit II (3)

Continuation of 37.595.

37.600 Linguistic Structure III: Theories of Syntax (3)

Introduction to and comparison of various models of syntactic analysis

37.605 Semantics (3)

History of semantic theory. Semantic changes, reflecting cultural change. Ambiguity of meaning. Metaphors, Synonymy. Etymologies. World-field theory. Structural semantics versus historical semantics.

37.610 Teaching Fellow Seminar (1)

A graduate workshop dealing with practical problems of foreign language teaching and limited to graduate teaching fellows (assistants).

37.700 Visiting Scholar's Seminar (3)

Seminar with flexible content pertaining to one or more selected topics in foreign literatures and linguistics. May be taken for credit more than once.

37.702 Seminar in French Literature (3)

Reports and critical discussion of research papers on French literature. Different content fall and spring. Course may be taken for credit more than once.

37.703 Seminar in German Literature (3)

Reports and critical discussion of research papers on German literature. Different content fall and spring. Course may be taken for credit more than once.

37.704 Seminar in Russian Literature (3)

Reports and critical discussion of research papers on Russian literature. Different content fall and spring. Course may be taken for credit more than once.

37.705 Seminar in Spanish and Latin-American Literature (3)

Reports and critical discussion of research papers on Spanish and Latin-American literature. Different content fall and spring. Course may be taken for credit more than once.

37.710 Seminar in Linguistics (3)

Reports and critical discussions on various theoretical and practical problems in the scientific study of language, methodology in linguistic research, and other pertinent linguistic subjects. Different content fall and spring. Course may be taken for credit more than once.

37.797 Master's Thesis Seminar (3-6)*Interdisciplinary Courses***75.523 Colloquium on France (3)**

Lectures, reports and critical discussions on selected topics pertaining to France's current role in international politics; cultural trends; economic problems. In French. Course may be taken for credit more than once. *Prerequisite:* three years college French or equivalent.

75.533 Colloquium on Germany (3)

Lectures, reports and critical discussions on selected topics pertaining to Germany's current role in international politics; cultural trends; economic problems. In German. Course may be taken for credit more than once. *Prerequisite:* three years college German or equivalent.

75.543 Colloquium on Soviet Union (3)

Lectures, reports and critical discussions on Soviet political system; Russia and USSR. Continuity and change; Communist semantics as a propaganda means; cultural scene. In Russian. Course may be taken for credit more than once. *Prerequisite:* three years college Russian or equivalent.

75.553 Colloquium on Latin America (3)

Lectures, reports and critical discussions on peoples and governments of Latin America; cultural trends; political and economic problems; international relations. In Spanish. Course may be taken for credit more than once. *Prerequisite:* three years college Spanish or equivalent.

Latin America—(See Language and Area Studies)**Linguistics—(See Languages and Linguistics)****Logistics—(See Business Administration)****Management Development Programs—(See Business Administration)****Management Information Systems—(See Continuing Education)****Managerial (Business) Economics—(See Business Administration)****Manpower Management—(See Business Administration)****Marketing—(See Business Administration)**

Mathematics

NOTE: During the transition period from old course offerings to new, students should consult semester bulletins and this department for information about course offerings.

41.100 Finite Mathematics (Course)

Sets, real numbers, solution of equations, inequalities, probability, functions, elementary linear algebra. Applications to biology, business and social sciences. No credit towards a mathematics major.

41.101 Elements of Calculus (Course)

Continuity and limits. Differentiation and integration. Calculus of several variables. Series and differential equations. Intended for students in biological, social sciences and business. No credit towards a mathematics major. *Prerequisite:* 41.100.

41.105-106 The Nature of Mathematics I, II (Course, Course)

Interplay of mathematics with the natural, social and physical sciences and the humanities. *Prerequisite:* permission of the department.

41.110 Fundamentals of Mathematics (Course)

Fundamentals of sets, functions, algebra, and trigonometry needed as a background for calculus. *Prerequisite:* three years of high school mathematics.

41.111 Calculus I (Course)

Set notation; real numbers; coordinate systems and distance; straight lines and loci; transformation of coordinates; functions and sequences; limits and continuity; differentiation and applications; anti-differentiation and applications; introduction to rigor and the nature of proof. *Prerequisite:* 41.110 or four years of high school mathematics.

41.222 Calculus II (Course)

Definite integration and applications; infinite series; power series representations; calculus of transcendental functions; matrices; linear substitutions and simultaneous equations; determinants; elementary linear programming, algorithms and computation. *Prerequisite:* 41.111.

41.223 Calculus III (Course)

Functions of several variables; calculus of several variables; differentials and Jacobians; implicit and inverse transformations; line integrals; Green's and Stokes' theorems. *Prerequisite:* 41.222.

41.310 Linear Algebra (Course)

Vector spaces, systems of linear equations, solutions by matrices, determinants, linear transformations, algebraic forms. *Prerequisite:* 41.222 or to be taken concurrently with 41.222. (will not be offered after spring 1972).

41.312 Abstract Algebra (Course)

Sets; groups, rings, integral domains; fields; polynomial rings. *Prerequisite:* 41.223 or 41.222 and permission of department. (will not be offered after spring 1972).

41.321 Differential Equations (Course)

First-order first-degree equations, linear equations of n th order with constant coefficients, Laplace transforms, applications to mechanics and electrical circuits, special equations of higher order, solution in series. *Prerequisite:* 41.223.

41.322 Calculus IV (Course)

Vector spaces, linear dependence and linear transformations; Matrix representations; linear D.E.'s and spaces of solutions; methods of solution. *Prerequisite:* 41.223.

41.390 Readings in Mathematics

41.412-413 Introduction to Modern Algebra (Course, Course)

Groups, rings, vector spaces and modules, fields and Galois theory. *Prerequisite:* two years of calculus.

41.420 Introduction to Analysis (Course)

Analysis on the real line; point sets; completeness; convergence; differentiability, Riemann integration. *Prerequisite:* 41.322.

41.440 Modern Geometry (Course)

Applications of linear algebra to analytic geometry; linear mappings, Euclidean and unitary vector spaces; geometry of quadric surfaces; reduction of quadratic forms. *Prerequisites:* 41.412-413.

41.460 Mathematical Principles of Computing I (Course)

Theoretical aspects of computer procedures, independent of programming language used. Algorithms, formulation of procedures; numerical and nonnumerical computation, data representation; accuracy, validity and efficiency of procedures. *Prerequisites:* 41.222, and 55.333 or equivalent.

41.461 Mathematical Principles of Computing II (Course)

Algorithms and finite automata; equivalence of finite automata, neural nets, and computing machines; Turing machines; linguistic aspects of automata; decidability. *Prerequisite:* 41.460.

41.474 Probability (Course)

Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal and other distributions; applications. *Prerequisite:* 41.322.

41.480 History of Mathematics (Course)

Individual topics in the history of mathematics since Newton and Leibniz. *Prerequisite:* permission of the department.

41.490 Independent Project in Mathematics

FOUNDATIONS AND ALGEBRA

Undergraduate students in .500 level courses receive one course unit.

41.502 Foundations of Mathematics I (3)

Modern developments in mathematics including elementary symbolic logic, truth tables, axiomatics, foundations of geometry, introduction to set theory, transfinite numbers. *Prerequisites:* 41.322 and further work or teaching experience in mathematics. Not intended for graduate students in mathematics.

41.503 Foundations of Mathematics II (3)

Continuation of 41.502. Peano's axioms, Dedekind cuts, the real and complex number systems, functions, homeomorphism and topological concepts, groups, rings, fields and other algebraic systems. *Prerequisite:* 41.502 or equivalent.

41.510 Matrix Theory for Applications (3)

Vector spaces, linear transformations, similarity, rational and classical canonical forms, unitary spaces, unitary equivalence, quadratic forms, congruence, rings of matrices, matrix representations of groups and algebras, applications to statistics, physics and other fields. Not intended for graduate students in mathematics. *Prerequisite:* 41.412-413.

41.512-41.513-41.514 Modern Algebra I, II, and III (3), (3), (3)

Selected topics from Group theory: Isomorphism theorems, Sylow theorems, classification of groups, solvable and nilpotent groups, p-groups, direct products, free groups, extensions. Ring theory: Ideal theory in commutative rings, factorization theory, Noetherian and Artinian rings, Wedderburn-Artin theorem, Jacobson radical, algebras. Field theory: Extensions, Galois theory, Kummer theory, valuations, Dedekind fields, algebraic number theory. *Prerequisite:* 41.412.

41.515 Number Theory (3)

Divisibility; sequences of primes, fundamental theorem of arithmetic congruences; totient; Euler's theorem; Wilson's theorem; congruences, diophantine equations; primitive roots; quadratic residues; Jacobi symbol, quadratic reciprocity; number theoretic functions; Mobius inversion formula, multiplicative functions; sums of squares; partitions. *Prerequisite:* 41.332.

41.518 Linear Programming (3)

Theoretical, computational, and applied aspects of linear programming. Simplex, revised simplex, transportation algorithms; duality, parametric programming; theory of games and management programs, applications. *Prerequisite:* 41.412-413.

41.519 Advanced Topics in Mathematical Programming (3)

Revised simplex method, parametric programming, solution of large-scale systems, decomposition algorithm, network analysis, integer programming, non-linear programming, stochastic programming, dynamic programming. *Prerequisite:* 41.518.

41.576 Mathematical Methods of Operations Research (3)

Short review of probability theory, Laplace and Z-transforms as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are nonexponential, Inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.412-413 and 41.474.

41.590 Readings in Mathematics

41.610 Advanced Linear Algebra (3)

Matrix theory, introduction to multilinear algebra, tensor products, orthogonal spaces, classical groups, algebras, projective geometry, infinite dimensional spaces. *Prerequisites:* 41.412-413.

41.616 Homological Algebra (3)

Homology, cohomology, homological dimension, Ext and Tor, spectral sequences, category theory. *Prerequisite:* 41.513.

41.690 Independent Project in Mathematics

41.710 Selected Topics in Algebra (3)

Topics selected from: field theory; theory of rings and algebras; algebraic number theory; theory of quadratic forms; lattice theory; homological algebra; representations of groups and algebras; Lie algebra and groups; non-associative algebras, topological algebra.

ANALYSIS, GEOMETRY, AND TOPOLOGY

41.520 Metric Spaces and Topology (3)

Euclidean and metric spaces and their topology; continuous functions; normed spaces; topological spaces; compactness, connectedness, and separation. *Prerequisite:* 41.420.

41.523 Ordinary Differential Equations (3)

Existence theorems, Riccati equation. Solutions in power series, regular and irregular singular points, two-point boundary-value problems, Sturm-Liouville theory, orthogonal functions. *Prerequisite:* 41.321.

41.524 Partial Differential Equations (3)

First and second order linear equations, type, characteristics, reduction to normal forms, separation of variables, Poisson's formula, Green's function. *Prerequisite:* 41.523.

41.528 Vector and Tensor Analysis (3)

Algebra and calculus of vectors, theorems of Green, Gauss, and Stokes. Riemannian geometry; contravariant, covariant, and mixed tensors, Christoffel symbols, Gaussian curvature. Applications. *Prerequisite:* 41.321.

41.570 Complex Variables for Applications (3)

Selected topics in complex variables; integrals of analytic functions; uniform convergence; power series; singularities; residues and contour integration. Not open to graduate students in mathematics. Fall. *Prerequisite:* 41.322.

41.571 Analysis for Statistics (3)

Point sets; measurable sets and functions; Lebesgue integrals; differentiation and integration; interchange of order; Lebesgue-Stieltjes integrals; dominated convergence. Spring. Not open to graduate students in mathematics. *Prerequisite:* 41.322.

41.620-621 Analytic Functions I, II (6)

Differentiation and integration of complex-valued functions, analyticity, Cauchy's theorems, Laurent's series, singularities, contour integration and residue calculus, conformal mapping, analytic continuation, Weierstrass' and Mittag-Leffler's theorems. *Prerequisite:* 41.520

41.622 Measure and Integration (3)

Measurability; integration and convergence theorems. Lp spaces, modes of convergence, differentiation, introduction to probability. *Prerequisite:* 41.520.

41.623 Normed Spaces (3)

Banach and Hilbert spaces; Hahn-Banach, open-mapping, closed-graph, and uniform boundedness theorems; introduction to spectral theory. *Prerequisite:* 41.622.

41.625 Calculus of Variations (3)

Extremization of functionals. Euler, Legendre, Weierstrass and Jacobi necessary conditions. Sufficient conditions for weak and strong extrema. Extremal fields and Hilbert's invariant integral. Isoperimetric problems and inequalities. Direct methods. *Prerequisite:* 41.521

41.626 Integral Equations (3)

Fredholm equations and theorems. Neumann series, resolvent, degenerate kernels. Hilbert-Schmidt theory, symmetric kernels, eigenfunction expansions, properties and estimation of eigenvalues. Application to boundary value problems. Singular integral equations. *Prerequisite:* 41.622

41.630 Advanced Topics in Complex Variables (3)

Conformal mapping and Riemann mapping theorem. Schlicht functions and distortion theorems. Riemann surfaces and uniformization. Entire functions. Normal families. Elliptic functions and automorphic functions. *Prerequisite:* 41.621.

41.634 Topological Vector Spaces (3)

General topology, nets, and filters; locally convex spaces, duality theory. *Prerequisite:* 41.623.

NUMERICAL ANALYSIS

41.560 Numerical Analysis I: Basic Problems (3)

Interpolation, finite differences, numerical differentiation, integration, and approximation by orthogonal functions, least squares, asymptotic representations, difference equations, continued fractions, planning tables, optimum interval tables, differencing. *Prerequisite:* 41.322.

41.561 Numerical Analysis II: Matrices (3)

Calculation of inverses of matrices by various methods, iterative processes for solving systems of simultaneous linear equations, and determination of eigenvalues and eigenvectors of matrices. *Prerequisite:* 41.510.

41.562 Numerical Analysis III: Ordinary Differential Equations (3)

Numerical solution of ordinary differential equations of initial value and boundary value types. Picard's method. Runge-Kutta and other methods. Error analysis, stability, rates of convergence. Rayleigh-Ritz method. *Prerequisites:* 41.560 and 41.321.

41.563 Numerical Analysis IV: Partial Differential Equations (3)

Finite difference methods for elliptic and parabolic equations. Matrix iterative analysis, overrelaxation. Approximation of operators and monotony theorems. Error analysis, stability, and rates of convergence. Characteristic methods for hyperbolic equations. *Prerequisite:* 41.560.

MATHEMATICAL PHYSICS

41.550 Mathematics for Physics I (3)

Fourier series, integrals and transforms, Laplace transform methods, eigenvalues and diagonalization of matrices, oscillatory systems and normal modes, calculus of variations, special functions. *Prerequisite:* 41.321.

41.551 Mathematics for Physics II (3)

Wave equation, vibrating strings and membranes, Laplace's equation, heat equation, complex variables and contour integration, conformal mapping, tensors. *Prerequisite:* 41.550.

41.654 Partial Differential Equations of Mathematical Physics I (3)

Second order hyperbolic equations, characteristics, Cauchy and Goursat problems, Riemann's method, quasi-linear equations. Legendre transformation, wave equation in n -dimensions, spherical means. Hadamard's method. *Prerequisites:* 41.524 and 41.551.

41.655 Partial Differential Equations of Mathematical Physics II (3)

Second order elliptic, parabolic, and mixed equations, problems of Dirichlet and Neumann, Green's function, potentials of volume and surface distributions, diffusion phenomena, Tricomi's equation. *Prerequisite:* 41.654.

41.656 Mathematical Theory of Fluid Dynamics I (3)

Basic kinematic and dynamics concepts, incompressible fluids, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets and free streamline problems. *Prerequisite:* 41.551.

41.657 Mathematical Theory of Fluid Dynamics II (3)

Dynamics and thermodynamics of compressible fluids, subsonic, transonic, and supersonic flows, Prandtl-Busemann method, hodograph method, shock waves, viscous fluids, boundary layer theory, and turbulence. *Prerequisite:* 41.656.

SEMINARS

41.720 Seminar: Analysis (3)

Research in analysis, involving individual projects.

41.750 Seminar: Applied Mathematics (3)

Research in applied mathematics, involving individual projects.

69.790 Seminar in Statistical Theory and Probability (3)

Advanced topics will be considered according to the needs of the students. *Prerequisites:* 69.600-601 and another 600 level sequence.

41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6)

41.799 Doctoral Dissertation Seminar in Mathematics and Statistics (6-12)

Statistics

69.202 Basic Statistics (Course)

Classification of data, averages, dispersion, probability, frequency distributions, confidence intervals, tests of significance, simple regression and correlation. *Prerequisite:* 41.100.

69.300 Business Statistics (Course)

Estimation, inference, multiple regression and correlation, index numbers, secular trend, seasonal and cyclical variations. *Prerequisite:* 69.202.

69.301 Psychological Statistics (Course)

Estimation, inference, special methods of two-variable correlation, multiple regression and correlation, design of samples and experiments, contingency tables. *Prerequisite:* 69.202.

69.390 Readings in Statistics**69.400 Managerial Statistics (Course)**

Frequency distributions; averages; dispersion; probability; inferences about means, proportions, and differences; regression; time series; index numbers. *Prerequisite:* 41.100 or graduate status.

69.484 Introduction to Mathematical Statistics (Course)

Probability distributions, introduction to sampling, sampling distributions, and the theory of point estimation and statistical inference including tests of hypotheses and confidence intervals. *Prerequisites:* 41.474 and 41.322.

69.490 Independent Project in Statistics**THEORY OF PROBABILITY AND STATISTICS**

Undergraduate students receive one course unit for .500 level courses.

41.574-575 Theory of Probability I and II (3, 3)

Measure theory, Lebesgue integral, random variables, distribution functions, generating and characteristic functions, special distributions and statistics, limit theorems, Markov chains. *Prerequisites:* 41.420 and 69.484.

69.500-501 Mathematical Statistics I and II (3, 3)

Probability concepts; discrete and continuous distributions; expected values and moments; sampling, point estimators, desirable properties; maximum likelihood; linear estimation, regression, and variance analysis; interval estimation and significance tests. Fall, spring. *Prerequisites:* 41.322 and 69.484, corequisite 41.412-413.

69.510-511 Theory of Sampling I and II (3, 3)

Mathematical development of basic principles of survey design including methods for determining expected value, bias, variance and mean square error; simple random, systematic, stratified, cluster, multistage, and double sampling; unbiased, ratio, regression, and composite estimation; optimum allocation of resources; controlled and other non-simple methods of selection; introduction to measurement error; comparison of alternative designs. *Prerequisites:* 41.223, corequisite 69.500.

69.590 Readings in Statistics**69.600-601 Advanced Mathematical Statistics I and II (3, 3)**

General theory of random variables and probability distributions; theory of estimation and testing hypotheses, sufficiency, minimum variance, least squares; Bayesian, sequential, and non-parametric procedures; multivariate normal distribution. *Prerequisites:* 69.501, 41.420; 41.574 (may be taken concurrently).

69.604-605 Statistical Decision Theory I and II (3, 3)

Convex sets and functions; minimax theorem; statistical games; utility and principles of choice; strategies; complete classes; Bayes procedures; principles of invariance; sequential procedures; related topics. Every third year, beginning 1972-73. *Prerequisites:* 41.575 and 69.501.

69.610-611 Statistical Inference I and II (3, 3)

Advanced topics in the theory of estimation and testing hypotheses. *Prerequisites:* 41.575; 69.600 (may be taken concurrently).

69.620-621 Multivariate Analysis I and II (3, 3)

Multivariate normal distribution, Hotelling's T ; Wilks' likelihood ratio criterion; other test statistics; classification problems; principal components; canonical correlation; general multivariate regression and experimental designs; related topics. 1970-71 and alternate years. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.670-671 Linear Estimation I and II (3, 3)

General linear hypothesis; least squares estimation; Gauss-Markov theorem; regression; analysis of variance; multiple comparisons; analysis of covariance; factorial designs; randomized blocks; other experimental designs; effects of departures from assumptions. 1971-72 and alternate years. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.678-679 Stochastic Processes I and II (3, 3)

Distributions, generating functions; random walks; Markov chains; branching processes; Poisson processes; queueing theory; birth and death processes; normal processes; covariance processes; related topics. Every third year, beginning 1971-72. *Prerequisites:* 41.570, 41.575, and 69.501.

69.690 Independent Project in Statistics

For registration procedure see the section of the catalog on reading, research, and independent study courses.

STATISTICAL METHODOLOGY COURSES**69.514 Methodology I: General (3)**

Averages, dispersion, probability, sampling, approach to normality; simple and multiple regression; tests and confidence intervals for means, proportions, differences, regression coefficients; nonparametric statistics; analysis of variance. *Prerequisite:* 69.202.

69.515 Methodology II: Regression (3)

Simple and multiple regression; least squares; curve fitting; graphic techniques; tests and confidence intervals for regression coefficients. *Prerequisite:* 69.514, 69.484, or permission.

69.516 Methodology III: Design of Experiments (3)

Designing and analyzing results of balanced experiments; simple analysis of variance; components of variance; analysis of covariance; related topics. *Prerequisite:* 69.514, 69.484, or permission.

69.517 Methodology IV: Sampling (3)

Sampling principles; stratification; alternative methods of selection and estimation; comparisons of accuracy, precision, and cost. Applications; auditing, acceptance inspection, market research, personnel administration. *Prerequisite:* 69.514.

69.518 Methodology V: Psychological Statistics (3)

Methods appropriate for analyzing data of psychological research; validity and reliability; regression; analysis of variance and covariance; interval estimates and significance tests; related topics. *Prerequisite:* 69.301 or 69.514.

**Medical Technology—
(See Separate Requirements Available on Request from Biology Department)**

Middle East and North Africa—(See International Studies)

MUSIC

HISTORY AND LITERATURE

43.100 Fundamentals of Music (Course)

Development of listening techniques based on an understanding of the functional role of the elements in the organization of music.

43.101 Survey of Musical Styles (Course)

Representative compositions and composers from the Middle Ages to the twentieth century, compared and evaluated within an historical and cultural context. *Prerequisite:* 43.100.

43.102 Topics in Music Appreciation (Course)

Study of a pre-selected area such as orchestral music, chamber music, opera, American music, folk music, 20th century music, etc. May be repeated for credit if no duplication of topic is involved. *Prerequisite:* 43.100.

43.106 African Music (Course)

Music of several major areas of Africa (including such areas as Uganda, Ghana, Nigeria, Kenya, and the Congo) and its subsequent influence on Black American music. *Prerequisite:* none.

43.300 History of Music (Course)

Development of music in Western civilization from the modal structures of the Greeks to the Baroque era. *Prerequisite:* 43.205 or permission of instructor.

43.301 History of Music II (Course)

Development of music in Western civilization from the Baroque era to the present day. *Prerequisite:* 43.300.

43.390 Readings in Music**43.490 Independent Project in Music****43.590 Readings in Music****43.690 Independent Project in Music**

THEORY

43.104 Theory I (Course)

Comprehensive study of scales, modes, rhythm, instruments, and notational practices from the Middle Ages to the present. Basic general concepts of rhythm, melody, harmony, counterpoint, and form studies in the context of developing ear and sight reading proficiency.

43.105 Theory II (Course)

Line, rhythm, notation, form and vertical relationships as practiced in Medieval music. Literature and style analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.104.

43.204 Theory III (Course)

Study of 15th and 16th century style and theory by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.105.

43.205 Theory IV (Course)

Baroque style and theory, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.204.

43.302 Ear Training and Sight Reading (Course)

An intensive course in aural development and sight reading proficiency which may be extended over a three year period. Students may complete course requirements as they individually achieve the required levels of proficiency. *Prerequisite:* Open only to music majors.

43.304 Theory V (Course)

Music of classic and romantic periods studied by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.205.

43.305 Theory VI (Course)

Diverse styles and theoretical attitudes of the twentieth century, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.304.

43.306 Conducting I (Half-course)

Practical study of basic conducting technique; emphasis on choral conducting. *Prerequisite:* 43.205 or permission of instructor.

43.307 Conducting II (Half-course)

Orchestral and band conducting; score reading and interpretation. *Prerequisite:* 43.306.

43.311 Orchestration (Half-course)

Scoring for various chamber ensembles and full orchestra. Analysis of orchestration practice of composers from classic era to present. *Prerequisite:* 43.205 or permission of instructor.

43.312 Keyboard Harmony I (Half-course)

Keyboard practice of chord progressions in four parts; cadence patterns; simple melodic harmonization; harmonic sequences. *Prerequisite:* 43.205 or permission of instructor.

43.313 Keyboard Harmony II (Half-course)

Continuation of 43.312; modulation and transposition; special projects for individual needs. *Prerequisite:* 43.312.

43.315 Composition I (Course)

Individually supervised practice in writing short compositions in specified small forms. *Prerequisite:* 43.205

43.316 Composition II (Course)

Continuation of 43.315; assignments adapted to individual needs and talents of students. *Prerequisite:* 43.315

MUSIC EDUCATION**43.140 Introduction to Music Education (Half-course)**

History and philosophy of music education in the school, the college, the private studio, and the community. Scope and sequence of music instruction in the light of current aesthetic and learning theory. *Prerequisite:* sophomore standing

43.353 Music for Elementary School Teachers (Course)

Technical background and methods of presentation for the elementary classroom teacher to use in teaching music. Primarily for elementary education majors; students majoring in music may not include this course as credit toward a degree. *Prerequisite:* 43.100 or the equivalent.

43.360 Instrumental Music: Methods and Materials (Course)

Preparation for student-teaching experience through the study of classroom management, materials and methods of presentation based on current learning theory. *Prerequisite:* 43.140.

43.361 Vocal Music in the Elementary School: Methods and Materials (Course)

Principles, procedures and materials for the general music program in the elementary school. *Prerequisite:* 43.140.

43.362 Vocal Music in the Secondary School: Methods and Materials (Course)

Principles, procedures and materials for the general and choral music program in secondary schools. *Prerequisite:* 43.140.

43.363 General Music: Methods and Materials (Half-course)

Definition of behavioral objectives examination and development of appropriate materials and methods for presenting general music in the junior and senior high school classroom. *Prerequisite:* 43.140.

APPLIED MUSIC**43.113 Class Guitar I (Quarter-course)**

Beginning study of classic guitar in preparation for private study.

43.114 Class Guitar II (Quarter-course)

Continuation of Class Guitar I. *Prerequisite:* 43.113 or audition.

43.115 Class Piano I (Quarter-course)

Beginning piano study directed toward satisfaction of the department's minimal piano requirements.

43.116 Class Piano II (Quarter-course)

Continuation of basic piano skills begun in Class Piano I, necessary for entrance into 43.312 Keyboard Harmony, and private piano study. *Prerequisite:* 43.115

43.117 Class Voice I (Quarter-course)

Beginning voice study directed toward satisfaction of the minimal voice requirements in music education.

43.118 Class Voice II (Quarter-course)

Application of basic principles of correct use of the singing voice to the study of good song literature. *Prerequisite:* 43.117.

43.149 Class Instrumental Study: Brass (Quarter-course)

Beginning study of one pre-selected brass instrument (trumpet, trombone, French horn, tuba), embodying fundamentals of embouchure, fingering, breathing, and principles of pedagogy relating to brass instrumental methods and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.150 Class Instrumental Study: Strings (Quarter-course)

Beginning study of one pre-selected bowed string instrument (violin, viola, violoncello, contrabass); techniques, methods, and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.151 Class Instrumental Study: Woodwinds (Quarter-course)

Beginning study of one pre-selected woodwind instrument (flute, oboe, clarinet, bassoon); techniques, methods, and materials. May be repeated for credit on another instrument. Open to all students. *Prerequisite:* 43.100 or the equivalent.

43.152 University Chorale (Half-course)

Prepares and presents major works of choral literature. *Prerequisite:* audition.

43.153 University Singers (One course for the year)

A small, highly select traveling choral ensemble which presents both sacred and secular programs. *Prerequisite:* audition.

43.154 University Orchestra (Half-course)

Concerts, sight-reading, study of selected compositions. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

43.155 Instrumental Ensemble (Quarter-course)

Symphonic band, brass ensemble, stage band, jazz ensemble, string quartets, woodwind quintets, miscellaneous ensembles. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

Applied Music (Private Study)

All undergraduate courses in applied music may be repeated for credit. Fees are in addition to tuition. For regulations regarding applied music (levels of achievement, juries, attendance at recitals, etc.), see the departmental *Applied Music Handbook*. Enrollment in all courses listed under applied music must be approved by the department. The student is required to show written permission at registration.

44.121 Private Instrumental or Vocal Study (Quarter-course)

Limited to students not majoring in music or music majors on secondary instruments. *Prerequisite:* 43.114 for guitar, 43.116 for piano, 43.118 for voice, 43.149 for brass instruments, 43.150 for bowed string instruments, 43.151 for woodwind instruments; or the equivalent. Fee, \$50.

44.122 Private Instrumental or Vocal Study (Half-course)

Limited to students not majoring in music. *Prerequisite:* see 44.121. Fee, \$100.

44.131 Private Instrumental or Vocal Study (Quarter-course)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$30.

44.132 Private Instrumental or Vocal Study (Half-course)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$60.

44.334 Private Instrumental or Vocal Study (Course)

Enrollment limited. Recital required. *Prerequisite:* audition and permission of department chairman. Fee, \$60.

44.434 Private Instrumental or Vocal Study (Course)

Enrollment limited. Recital required. *Prerequisite:* audition and permission of department chairman. Fee, \$60.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive quarter, half, or full course credit.

History and Literature**43.500 Music of the Baroque Era (3)**

Emergence and development of vocal and instrumental musical styles and techniques from Monteverdi to Bach and Handel; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301 or concurrent registration.

43.501 Music of The Classic Era (3)

Growth of new musical forms and ideas from the pre-classicists to Haydn, Mozart and Beethoven; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301 or concurrent registration.

43.502 Music of The Romantic Period (3)

Historical and cultural background; intensive study of the composers and works of the period; emphasis on individual styles; nationalism, program music. *Prerequisite:* 43.301.

43.503 Music of Twentieth Century (3)

Survey of contrasting musical ideas and attitudes from 1900 to the present, with emphasis on the styles of selected major composers; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.301

43.504 Studies in Music Literature (3)

Survey of a pre-selected area, such as chamber music, orchestral music, keyboard music, choral music, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.505 Studies in Music History (3)

History of a pre-selected area, such as opera, music theory, musical instruments, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.510 Introduction to Musicology (3)

Bibliographical studies; transcription of early notations; preparation of papers for written or oral presentation. *Prerequisite:* 43.301.

43.555 Collegium Musicum (1) (Quarter-course for undergraduates)

Preparation and performance of vocal and instrumental music, mainly for various small ensembles, with emphasis on music before 1750; use of departmental collection of replicas of early instruments (lute, viol, sackbut, cromorne, recorders, cornetti, harpsichords). Graduate students are expected to edit music for performance and/or direct ensembles, as well as perform. *Prerequisite:* permission of instructor.

43.570 Music in Worship (3)

Historical survey of music on both fixed and free liturgies. *Prerequisite:* 43.301.

43.670 Seminar in Church Music (3)

Studies in pre-selected areas of church music. May be repeated for credit if no duplication is involved. *Prerequisite:* 43.570 or concurrent registration.

43.680 Medieval Music (3)

Advanced study of music in the Middle Ages with special attention to origin and development of music forms, illustrated by recordings; taped listening assignments. *Prerequisite:* 43.301.

43.701 Renaissance Music (3)

Intensive study of form, style, techniques and musical thought of the period; lectures illustrated with recordings; taped listening assignments. *Prerequisite:* 43.680 or permission of instructor.

43.702 Musicology Seminar (3)

Advanced study in pre-selected areas, such as notation, performance practices, the Italian madrigal, etc. May be repeated for credit if no duplication is involved. *Prerequisite:* six hours of advanced history and literature courses, including 43.510.

43.797 Master's Thesis Seminar (3-6)

Prerequisite: 43.703 for Composition majors; 43.540 for music education majors (instrumental or vocal); 43.510 for all other students; plus permission of department chairman.

THEORY**43.507 Studies in Music Theory (3)**

Studies in depth in specific areas of theoretical concern, such as fugue; chance vs. control as compositional principles, and, techniques of variation. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.305.

43.515 Advanced Conducting (3)

Conductor's role in the preparation and presentation of the more complex masterworks. Students will be expected to participate in laboratory conducting experiences. May be repeated for credit. *Prerequisites:* 43.306 and 43.307 or the equivalent.

43.700 Analytical Studies (3)

Analysis of specified works, composers, styles, idioms, forms. Period covered is announced in semester bulletins. May be repeated for credit. *Prerequisite:* 43.305.

43.703 Advanced Composition (3)

Guidance in writing large forms. Assignments adapted to individual needs and talents. May be repeated for credit. *Prerequisite:* 43.316.

43.704 Twentieth-Century Counterpoint (3)

Study of important contrapuntal styles of the past seventy years through analysis. Practical creative writing problems in each style studied. *Prerequisite:* 43.305.

MUSIC EDUCATION**43.540 Introduction to Graduate Study in Music Education (3)**

Research techniques and materials designed to acquaint the practicing music educator with useful findings and applicable methods. Bibliography and library resources.

43.561 Music Education Seminar (Vocal, General, Instrumental) (3)

Advanced study of a specific, pre-selected area in music education. *Prerequisite:* 43.360 or 43.361-362, as applicable.

43.740 Supervision and Administration of Music Education (3)

Nature and scope of supervision, supervisory relationships, procedures and techniques, organization and improvement of music curricular, administration of music programs and development of evaluative criteria.

43.760 History and Philosophy of Music Education (3)

Survey of the history and practice of music teaching since ancient times, with emphasis on the development of music education in the United States.

APPLIED MUSIC**44.532 Service Playing and Improvisation (2) (Half-course for undergraduates)**

Techniques of score reading, service playing, improvisation, realizing figured bass, and directing from the console. *Prerequisites:* 43.313 Keyboard Harmony II and senior-level ability in organ playing, as indicated in the department *Applied Music Handbook*.

43.550 Pedagogy I (2) (Half-course for undergraduates)

Seminar to explore concepts of vocal and instrumental performance and their application to teaching in the private studio. *Prerequisite:* permission of instructor.

43.551 Pedagogy II (2) (Half-course for undergraduates)

Survey of literature and the teaching of instrumental and vocal techniques. *Prerequisite:* 43.550.

43.552 Internship in Music (3)

Practical professional experience for selected students who work with a cooperating agency directly in their professional field under faculty guidance and supervision. *Prerequisite:* permission of department chairman.

44.791 Private Instrumental or Vocal Study (1)

May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission of the department. Fee, \$50.

44.792 Private Instrumental or Vocal Study (2)

May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission of the department. Fee, \$100.

Music Education—(See Preceding)**Nursing****46.200 Nursing I (Double-course)**

Health needs, assessment of nursing needs, and clinical practice in meeting the uncomplicated needs of selected patients. Five hours of class, eight hours of laboratory. *Prerequisite:* Sophomore standing, open only to nursing majors.

46.201 Nursing II (Double-course)

Body's reaction to illness and injury, care of patients whose needs are complicated by disease, and care of patients undergoing surgical treatment. Five hours of class, twelve hours of laboratory. *Prerequisite:* 46.200.

46.300 Nursing III (Triple-course)

Continuation of 46.201. Care of patients whose needs are complicated by disease and who are treated medically and/or surgically. Special consideration to the nurse's role in relation to the total plan of care. Five hours of class, twelve hours of laboratory. *Prerequisites:* 46.200, 46.201, 46.440.

46.440 Individual and Group Dynamics (Half-course)

Personality organization and development, interpersonal relations; emphasis on the nurse-patient relationship. Group process focused on through work in small groups. Taught concurrently with 46.201 and whenever possible correlated with it. Two hours of class, two hours of seminar. *Prerequisite:* 46.200.

46.310 Maternal-Child Nursing (Triple-course)

Principles of growth and development; the family as a unit emphasized in caring for mothers during the maternity cycle and for sick children from birth through adolescence. Six hours of class, 16 hours of laboratory. *Prerequisites:* 46.200, 46.201, 46.300, 46.440, 57.400.

**46.340 Psychiatric Nursing
(Double-course)**

Nursing care of the mentally ill in the hospital and community. Includes care of patients individually and in groups, in acute and chronic stages of mental illness. Two hours of class, 8 hours of laboratory, 4 hours of community mental health field trips and discussions. *Prerequisite:* senior standing

46.390 Readings in Nursing**46.400 Public Health Nursing
(Double-course)**

Based on community and public health principles incorporated throughout the nursing major with emphasis on the role of nurses in community health programs. Each week for one semester there will be one hour seminar, 7 hours laboratory and 4 hours in community. Mental health field trips and discussions. *Prerequisite:* senior standing.

**46.410 Problem Analysis in Patient
Care (Course)**

Problems of patients with complex nursing needs. Students assume increased responsibility for nursing care to meet these needs. Four hours of class, 16 hours of laboratory for one-half of the semester. *Prerequisite:* senior standing

**46.420 Organization of Patient
Care Services (Course)**

Principles of leadership and group dynamics in the organization of patient care in working with professional and auxiliary personnel. Four hours of class, 16 hours of laboratory. *Prerequisite:* senior standing

**46.430 History and Analysis of
Nursing (Course)**

Nursing from antiquity to the present. Relationship of this development to problems in nursing in contemporary society. *Prerequisite:* senior standing

**46.490 Independent Project in
Nursing****46.590 Readings in Nursing****46.690 Independent Project in
Nursing****Operations Research—(See
Continuing Education)****Personnel Management—(See
Business Administration)****Personnel Administration—
(See Govt. & Public
Administration)****Philosophy and Religion****PHILOSOPHY****47.100 Logic and the Scientific
Method (Course)**

The nature of valid inference and its relation to the scientific method. Principles of inductive and deductive reasoning

**47.101 Introduction to Philosophy
(Course)**

Questions man has asked about himself, the world, and the origin, purpose and destiny of life; representative answers given by the great thinkers.

**47.102 Philosophies Men live By
(Course)**

Selected philosophers in the history of Western thought, their relevance to human existence.

**47.300 History of Philosophy:
Ancient and Medieval
(Course)**

Historical survey of representative philosophers from the early Greeks through the Middle Ages. Not open to freshmen.

**47.301 History of Philosophy:
Modern (Course)**

Philosophers from the Renaissance to Hegel. Not open to freshmen

**47.302 History of Philosophy:
Recent (Course)**

Philosophers from Hegel to contemporary existentialism and linguistic analysis. Not open to freshmen.

**47.303 American Philosophy
(Course)**

Backgrounds and substance of American philosophy since colonial times. Role of philosophical ideas, European and indigenous, in the growth of the American culture. *Prerequisite:* one course in philosophy.

**47.305 Philosophies of the East
(Course)**

Systems of thought in the East from ancient to modern times. Special emphasis upon philosophies of Confucianism, Taoism, Hinduism, and Buddhism

47.310 Ethics (Course)

Inquiry into the principles of moral evaluation, their relation to factual judgment and individual and social behavior. Evaluation of traditional schools and theories of ethics. *Prerequisite:* one course in philosophy.

47.311 Aesthetics (Course)

Nature of beauty and the relation of the philosophy of the beautiful to fine arts and human experience. *Prerequisite:* one course in philosophy.

47.390 Readings in Philosophy**47.396 Topics in Contemporary
Philosophical Discussion
(Course)**

Discussion and analysis of selected issues in philosophical discussion. *Prerequisite:* one course in philosophy

**47.490 Independent Project in
Philosophy****Advanced Courses**

Undergraduate students enrolled in 500 level courses will receive one course unit.

**47.500 Studies of Major
Philosophers (3)**

Reading and analysis of leading historical philosophers. For fall, 1970: Aristotle; Descartes and Leibniz; Hegel's *Phenomenology of Mind*. For spring, 1971: British Empiricists. *Prerequisite:* three courses in philosophy.

**47.502 Studies of Recent
Philosophers (3)**

Reading and analysis of selected philosophers since Hegel as the background of contemporary philosophical movements. *Prerequisite:* three courses in philosophy.

47.504 Contemporary Philosophy (3)

Study of a leading contemporary movement in philosophy. For fall, 1970: J. L. Austin. For spring, 1971: Naturalism. *Prerequisite*: three courses in philosophy.

47.506 Selected Topics in Philosophical Analysis (3)

Selected issues in philosophy. For fall, 1970: Philosophy of the social sciences. For spring, 1971: The Boundaries of Ethics, Soul and Mind. *Prerequisite*: three courses in philosophy.

47.508 Philosophy of Religion (3)

Study of a leading contemporary movement in philosophy of religion. *Prerequisite*: three courses in philosophy.

47.520 Symbolic Logic (3)

Analysis of the development and use of symbolism in modern logic and its relevance to the clarification of logical problems. *Prerequisite*: 47.100.

47.521 Logical Analysis (3)

Application of logical theory to philosophical discourse. *Prerequisite*: 47.520.

47.525 Philosophy of Science (3)

Relationship of modern philosophy to the findings of modern science. *Prerequisite*: 47.100.

47.530 Social Philosophy (3)

Leading proposals regarding the philosophical foundation of modern culture and society. *Prerequisite*: three courses in philosophy.

47.590 Readings in Philosophy**47.690 Independent Project in Philosophy****47.702 Graduate Seminar in Philosophy (3)**

Intensive study of selected philosophical problems. *Prerequisite*: four courses in philosophy.

Topics:

- I. History of philosophy
- II. Metaphysics
- III. Logic
- IV. Epistemology
- V. Philosophy of science
- VI. Value theory
- VII. Philosophy of religion
- VIII. Social philosophy
- IX. Eastern philosophy

For fall, 1970: Epistemology: Philosophy of Language; Philosophy of Religion: God, Mysticism and Evil. For spring, 1971: Epistemology: Problems of Perception; Metaphysics: The Problem of Substance.

47.797 Master's Thesis Seminar (3-6)

Directed research of M.A. thesis proposal. *Prerequisite*: permission.

47.799 Doctoral Dissertation Seminar (6-24)

Directed research of Ph.D. dissertation proposal. *Prerequisite*: permission.

RELIGION**Biblical Study****47.150 Introduction to the Old Testament (Course)**

Emphasis upon the substantive content of the Bible. Special attention to the historical method and the canon of biblical interpretation.

47.170 Introduction to the New Testament (Course)

Literary, historical and theological study of the New Testament with particular attention upon Jesus, Paul and the development of the Christian movement

47.180 Introduction to Religious Thought (Course)

The nature of religion and essential religious concepts.

Christian Thought**47.370 History of Christian Thought I (Course)**

Survey of Christian thought from apostolic times through medieval period to Erasmus. Special attention to the rise of orthodoxy and heresy in representative thinkers and councils.

47.371 History of Christian Thought II (Course)

Protestant and Roman Catholic reformations of the 16th century. Analysis of the thought of the development and place of Christian ideas in the rise of modern secular culture.

47.374 Topics in Contemporary Religious Discussion (Course)

Topics in contemporary religious discussion within or between Protestantism, Catholicism (Roman and Eastern Orthodox), and Judaism. For fall 1970, Christian Ethics. *Prerequisite*: one course in philosophy or religion; The Prophets and Politics. *Prerequisite*: 47.150 or permission. For spring 1971, The Search for a New Religious Life Style. *Prerequisite*: one course in philosophy or religion; Judaism and Christianity. *Prerequisite*: one course in religion.

47.380 Psychology of Religion (Course)

Psychological appraisal of religious experience, prayer, worship, belief, interpersonal relationships, religious practices and behavior.

History of Religion**47.383 Comparative Religion (Course)**

Synoptic study of the world's living religions, their founders, literature, teachings and values.

47.394 Post-Biblical Judaism (Course)

Judaism from the Maccabean period to the present. Selected philosophical, theological, institutional movements in Jewish faith and practice. *Prerequisite*: 47.150

3.430 Primitive Religions (Course)

Varieties of religious experiences and expressions exclusive of the great world religions. Role of religion in influencing behavior and in integrating particular societies, cultures. *Prerequisites*: 3.201 and 3.335

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

47.550 Studies in Non-Christian Religions (3)

Theology and literature of non-Christian religious movements. For fall 1970: Hinduism. For spring, 1971: Buddhism. *Prerequisite*: 47.305 or 47.383.

47.560 Selected Biblical Studies (3)

Study of selected topics in biblical literature For fall 1970. The life and teachings of Jesus. For spring 1971. Early Christianity and Paul *Prerequisite* 47 170

47.570 Problems of Religious Thought (3)

Examination of basic problems and issues in religious thought, both classical and contemporary For fall 1970. Radical theology and the death of God. *Prerequisite*: two courses in philosophy or religion For Spring 1971 The Problem of God.

47.797 Master's Thesis Seminar (3-6)

Directed research of M.A. thesis proposal. *Prerequisite*: permission.

Physical Education—(See Health, Physical Education and Recreation)**Physics****Liberal Arts Courses**

The following group of courses are for students whose primary interests are in fields other than science and for students of science with broad interests. These courses are non-mathematical and have no prerequisites other than a lively curiosity

51.100 Physics as Natural Philosophy (Course)

The world view of the scientist: a look at galaxies, atoms, and life the way they are understood today. The vital ideas of physics, chemistry, and biology, together with ideas about ideas—how we know things.

51.101 Sound, Light and the Arts (Course)

Sound and hearing, music: traditional, electronic and rock; light and vision; color, images, the eye and the camera; recording and reproduction of sound and light; the broadcast media.

51.102 Science, Culture, and the History of Ideas (Course)

The role of scientific thought and practices in shaping the intellectual climate of the Western world since the Renaissance. Technological invention as distinguished from science as a mode of thought. The quality of life in the past and present with a view to the year 2000.

51.103 Science, Human Values, and Public Policy (Course)

Astronomy, religion, and the question of life in space; DDT, the pill, and population explosion; nuclear power, mineral resources, and pollution; electronic surveillance and rights of privacy; computers and data banks; traffic problems; the arms race.

51.110 The Basic Ideas of Physics (Course)

A non-mathematical presentation of the basic concepts of physics and related technological developments relevant to various areas of everyday life.

Undergraduate Courses**51.120 Introduction to Physics I (Course)**

Basic physical concepts in the structure of matter and the macroscopic world, mechanics and electricity, atomic physics, waves and oscillations, molecules and heat. *Prerequisite*: 41.110 or concurrent registration.

51.121 Introduction to Physics II (Course)

Basic physical concepts in the structure of matter and the macroscopic world, electromagnetism, light, relativity, nuclear physics, structure of solids. *Prerequisite*: 51.120; 41.111 or concurrent registration.

51.122 General Physics Laboratory I (Half-course)

Selected experiments to accompany 51.120. *Prerequisite*: 51.120 or concurrent registration.

51.123 General Physics Laboratory II (Half-course)

Selected experiments to accompany 51.121 *Prerequisite*: 51.121 or concurrent registration.

51.230 Principles of Mechanics (Course)

Vector analysis, moving reference systems, particle dynamics, concepts of energy and momentum, harmonic oscillator, rigid body dynamics and central forces. *Prerequisites*: 51.121; 41.222 or concurrent registration.

51.231 Waves, Oscillations, and Relativity (Course)

Vibration theory, wave propagation, boundary value problems, ordinary and partial differential equations, Fourier analysis. Space and time, Lorentz transformations and relativistic dynamics *Prerequisites*: 51.230; 41.223 or concurrent registration.

51.350 Principles of Electromagnetism (Course)

Electrostatics, potential theory, magnetic fields, Faraday and Ampere's laws, dielectric magnetic media, Maxwell's equations *Prerequisites*: 51.230 or concurrent registration.

51.390 Readings in Physics**51.452 Advanced Laboratory I (Course)**

Selected experiments in electrical measurements and electronics. *Prerequisites*: 51.350 or concurrent registration.

51.453 Advanced Laboratory II (Course)

Selected experiments in electronics and modern physics. *Prerequisite*: 51.452.

51.490 Independent Project in Physics**Advanced Courses**

500-level courses are open to graduate students and advanced undergraduates; 600- and 700-level courses are open to graduate students. Undergraduates enrolled in 500 level courses will receive one course unit.

51.500 Introduction to Mathematical Physics I (3)

Curvilinear coordinates and tensor analysis, matrix theory; complex functions, contour integrals, and method of residues; method of Frobenius and special functions of mathematical physics. *Prerequisites*: 51.231, 51.350.

51.501 Introduction to Mathematical Physics II (3)

Sturm-Liouville theory, the eigenfunction problem, Green's functions, partial differential equations of mathematical physics, Fourier series and transforms, integral equations, group theory. *Prerequisite:* 51.500.

51.551 Electromagnetic Waves and Optics (3)

Maxwell's equations and electromagnetic waves, reflection and refraction, interaction of light with matter, interference phenomena, Huygens-Kirchoff diffraction theory, Fresnel and Fraunhofer diffraction, gratings, optical instruments. *Prerequisites:* 51.231, 51.350.

51.554 Principles of Electronics (3)

Circuit analysis, circuit theorems, physics of vacuum tubes and transistors, equivalent circuits. Analysis of power supplies, amplifiers and oscillators. Modulation, demodulation and pulse circuits. *Prerequisite:* 51.350.

51.560 Thermal and Statistical Physics (3)

Heat, temperature, the first and second laws of thermodynamics, cycles, reversibility, entropy changes, and the thermodynamic potentials. Kinetic theory and transport phenomena. Statistical interpretation of thermodynamics, definition of entropy, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. *Prerequisite:* 51.230

51.571 Introductory Quantum Mechanics (3)

Historical background to quantum mechanics, particles and waves, the Schrodinger equation, potential barriers and potential wells, the simple oscillator, the one-electron atom, angular momentum eigenfunctions, eigenvalues, and degeneracies. *Prerequisite:* 51.231 or concurrent registration.

51.572 Quantum Physics I (3)

Quantum mechanics, perturbation theory, spin, exclusion principle, transition rates, scattering theory, lasers, characteristics of nuclei, nuclear transitions, models, forces and binding energies. *Prerequisite:* 51.571.

51.573 Quantum Physics II (3)

Weak interactions, muons, pions; strong interactions and strange particles. Crystallography, lattices, thermal properties of solids; dielectric and magnetic properties; free electron model and band theory, metals and semiconductors; superconductivity. *Prerequisite:* 51.572.

51.582 Advanced Laboratory III (3)

Selected experiments in atomic physics, optics, electronics, acoustics, and machine shop practice. Three hours of laboratory. *Prerequisites:* 51.453, 51.571.

51.583 Advanced Laboratory IV (3)

Selected experiments in electronics, optics, atomic and nuclear physics, and machine shop practice. Three hours of laboratory. *Prerequisite:* 51.582.

51.590 Readings in Physics

51.600 Current Topics I (1)

Selected lectures and activities introducing the graduate student to the departmental programs. Compulsory for all beginning graduate students.

51.601 Current Topics II (1)

Guided readings in the student's area of concentration. *Prerequisite:* 51.600.

51.630 Theoretical Mechanics I (3)

Newtonian mechanics, rigid body dynamics, Lagrangian mechanics and tensor analysis, coupled oscillators and linear vector spaces, mechanics of continuous media. *Prerequisite:* 51.500 or concurrent registration.

51.631 Theoretical Mechanics II (3)

Elasticity, fluid mechanics and acoustics, relativistic mechanics, Hamiltonian mechanics and canonical transformations, Hamilton-Jacobi theory, Lagrangian and Hamiltonian densities. *Prerequisite:* 51.630.

51.650 Electromagnetic Theory I (3)

Electric and magnetic fields, boundary value problems, dielectric and magnetic media, Maxwell's equations, radiation and propagation of electromagnetic waves. *Prerequisite:* 51.501.

51.651 Electromagnetic Theory II (3)

Relativistic formulation of fields and potentials, Lienard-Wiechert potentials, dispersion, scattering, diffraction and physical optics. *Prerequisite:* 51.650.

51.660 Statistical and Thermal Physics I (3)

Review of principles and applications of thermodynamics. Principles of statistical mechanics, method of partition function and applications, method of probability distributions. *Prerequisites:* 51.560, 51.572 or concurrent registration.

51.661 Statistical and Thermal Physics II (3)

Ideal Bose and Fermi systems, applications to liquids and critical point phenomena, Ising and Heisenberg models for magnetism. Non-equilibrium thermodynamics, statistical mechanics, and fluctuations. *Prerequisite:* 51.660.

51.670 Quantum Mechanics I (3)

Experimental background to quantum mechanics, Schrodinger equation, eigenfunctions and eigenvalues, one-dimensional problems; WKB approximations; general principles of wave mechanics; central potentials, hydrogen atom, scattering. *Prerequisites:* 51.501; 51.572 or concurrent registration.

51.671 Quantum Mechanics II (3)

General formalism of quantum theory; angular momentum and spin; identical particles; stationary perturbations, time-dependent perturbation theory, variational method. *Prerequisite:* 51.670.

51.690 Independent Project in Physics

51.710 Solid State Physics I (3)

Lattice periodicity, Bloch's theorem, lattice vibrations, energy bands, Fermi statistics, Pauli paramagnetism, Hartree and Hartree-Fock equations, screening, plasma oscillations, dielectric function, impurity states. *Prerequisites:* 51.573, 51.560, 51.671.

51.711 Solid State Physics II (3)

Group theory, Boltzmann equation, electrical conductivity, Hall effect, magnetoresistance, de Haas-van Alphen oscillations, magnetism, superconductivity. *Prerequisite:* 51.710.

51.714 Statistical Mechanics of Simple Liquids (3)

Statistical theories of dense gases and liquids, cluster integrals, distribution functions; diagrammatic expansion techniques, Percus-Yevick, and hyper-netted chain approximations. *Prerequisite:* 51.661.

51.717 Structure of Liquids (3)

Review of equilibrium properties. Space and time dependent correlation functions, Diffusion and viscosity coefficients. Co-operative modes of motion in liquids. *Prerequisite:* 51.661.

51.720 Advanced Quantum Mechanics I (3)

Lorentz group; Dirac and Klein-Gordon equation. Lorentz covariance; S-matrix, propagator theory, Feynman diagrams, applications, formal theory of scattering *Prerequisite*: 51.671

51.721 Advanced Quantum Mechanics II (3)

Lagrangian field theory; quantization of free fields, interactions, S-matrix theory, covariant perturbation theory, applications to quantum electrodynamics and meson problems, dispersion relations; renormalization. *Prerequisite*: 51.720.

51.724 Nuclear Theory I (3)

Invariants, the deuteron, nucleon-nucleon problem, effective-range theory, nucleon-electron interaction, nucleon-nucleus interactions at low and high energies, and the electromagnetic interaction including isotopic spin *Prerequisites*: 51.573; 51.671.

51.725 Nuclear Theory II (3)

Nuclear shell model, many body theory of nuclei with correlations, Hartree-Fock equation and quasi-particles, collective nuclear motion, nuclear reactions including U- and R-matrix methods and pion physics. *Prerequisite*: 51.724

51.727 Critical Phenomena (3)

Intensive treatment of the thermodynamics and statistical mechanics of changes of state (fluid, solid, magnetic-non-magnetic, ordered, disordered), with particular emphasis on phenomena associated with critical points. *Prerequisites*: 51.651, 51.661.

51.728 Modern Atomic Physics and Quantum Electronics I (3)

Width and shape of spectral lines, electromagnetic interaction, Lamb shift, Einstein A and B coefficients. Multipole radiation, Born, Beta, and Ochkur approximations. Radiation trapping *Prerequisites*: 51.573, 51.671

51.729 Modern Atomic Physics and Quantum Electronics II (3)

Angular momentum coupling and Clebsch-Gordon coefficients, optical pumping and Hanle effects, physical description of pulsed and c.w. lasers, rate equations, non-linear interactions and Lamb dip. *Prerequisite*: 51.728.

51.731 Theoretical Acoustics (3)

Mathematical theory of waves and vibrations. Boundary value problems in radiation, diffraction and scattering, perturbation and variational methods. *Prerequisites*: 51.501, 51.631.

51.760 Quantum Theory of Solids I (3)

Phonons, second quantization, Hartree-Fock, energy bands; plasmons; equations of motion, Green's functions, diagrammatic methods. *Prerequisite*: 51.711.

51.761 Quantum Theory of Solids II (3)

Dielectric function; electrodynamics of metals; electron-phonon interaction, superconductivity; Fermi liquid theory; magnons, magnon-phonon interaction. *Prerequisite*: 51.760.

51.770 Elementary Particle Physics (3)

Mass spectra of the baryons, mesons and leptons, properties such as spin, isospin, parity, G-parity, strangeness, etc.; strong, electromagnetic, and weak interactions, classification schemes, unitary symmetry *Prerequisite*: 51.721.

51.771 High Energy Physics (3)

High energy elementary particle interactions, quantum field theory, symmetries, and S-matrix theory; strong interactions, pion-nucleon dispersion relations, partial wave amplitudes, electromagnetic form factors; weak interactions, beta decay, PCT, strange particle decays. *Prerequisite*: 51.721

51.772 Special Topics in Nuclear and Particle Physics (1)

Few-nucleon and nuclear structure through electron scattering, nucleus-electron interaction at long wavelengths, meson exchange effects in few-nucleon systems, the eight-fold way, Regge poles and duality. *Prerequisite*: permission.

51.780 Research Seminar in Physics (3-6)

Various topics in advanced physics with contents selected according to need. *Prerequisite*: permission.

51.795 Research Training Seminar (3-6)

Prerequisite: 51.601.

51.797 Master's Thesis Seminar (3-6)

51.799 Doctoral Dissertation Seminar (3-6)

Police—(See Continuing Education)

Political Dynamics—(See Government)

Political Science—(See Government)

Pride—(See Continuing Education)

Psychology

57.200 Introductory Survey of Psychology (Course)

Survey of various fields of psychology with emphasis on research discoveries

57.210 Introductory Psychology: Behavior Principles (Course)

Introduction to the scientific study of behavior of organisms. Extra course credit given if this course is taken with a laboratory.

One of the above is a prerequisite to other offerings of the department.

57.301 Psychological Statistics (Course)

Classification of data, averages, dispersions, probability, tests of significance, regression and correlation, statistical inference and design of experiments through analysis of variance.

57.310 Advanced Behavioral Principles (Course)

Continuation of behavior principles with addition of laboratory work. *Prerequisite:* 57.210

57.350 Developmental Psychology (Course)

Study of development through infancy, childhood and adolescence, with emphasis on learning, maturation, motivation, and social functions. *Prerequisite:* 57.200 or 57.210.

57.360 History and Systems of Psychology (Course)

Historical development of major theoretical systems in psychology. *Prerequisite:* 2 departmental courses

57.390 Readings in Psychology**57.410 Psychological Tests and Measures (Course)**

Fundamental principles of testing and critical survey of representative tests of achievement, intelligence, interest, aptitude and personality. *Prerequisite:* 1 introductory course and Psychological Statistics

57.420 Physiological Psychology (Course)

Anatomical and physiological substrates of behavior. *Prerequisites:* Junior standing; 2 departmental courses or permission of advisor.

57.430 Theories and Processes of Personality (Course)

Review and critical evaluation of major personality theories and current research in the field. *Prerequisite:* Junior standing and 2 departmental courses.

57.440 Social Psychology (Course)

Individual behavior as influenced by and demonstrated in group settings; evaluation of contemporary research and theoretical developments. *Prerequisite:* 1 introductory course.

57.450 Abnormal Psychology (Course)

Behavior pathology in the human organism. *Prerequisite:* Junior standing and 2 departmental courses or permission of instructor.

57.460 Sensation and Perception (Course)

Sensory processes and complex perceptual processes discussed in light of contemporary theories and research. *Prerequisite:* 2 departmental courses.

57.470 Contemporary Viewpoints * of Psychology (Course)

Evaluation and integration of a variety of approaches to the study of behavior. *Prerequisite:* Senior standing.

57.480 Experimental Psychology (Course)

Data and research methods in core areas of psychology. Review of experimental design. Individual and group experiments. *Prerequisites:* 1 departmental course and Psychological Statistics.

57.490 Independent Project in Psychology**Advanced Courses**

Undergraduate students enrolled in 500 level courses receive one course unit.

57.510 Learning Principles and Human Application (3)

Laboratory studies of certain behavioral procedures and the application of these procedures to education, psychotherapy and other problems in human affairs. *Prerequisites:* 57.210 Introduction to Psychology Behavior Principles and 69.301 Psychological Statistics or equivalent.

57.520 Advanced Developmental (3)

Contemporary view of modern concepts, theories and research of human development. *Prerequisite:* 57.350 or permission of instructor

57.530 Human Learning—Verbal Behavior (3)

Psychological processes involved in verbal behavior, memory, problem solving and thinking. *Prerequisites:* Junior standing and 2 departmental courses or permission of Psychology Department.

57.540 Quantitative Models of Behavior (3)

Review of efforts to bring mathematical methods to bear on psychological problems from the 19th century to the present. *Prerequisite:* 2 departmental courses in Psychological Statistics.

57.550 Test Theory and Models (3)

Theory of mental tests: assessment and prediction. *Prerequisites:* 57.410 and Psychological Statistics.

57.590 Readings in Psychology**SELECTIVE TOPICS (RECURRING)****57.596 Teaching Seminar (3)**

Application of behavior principles to the teaching of psychology. *Prerequisite:* 57.210 or permission of instructor

57.596 Behavior Design of Microsocieties (3)

Application of reinforcement principles to groups; emphasis on technical principles of a token economy. *Prerequisite:* 57.210.

57.596 Group Processes (3)

Experiential and literature study of group dynamics and processes focusing on individual behavior and feelings in groups. *Prerequisite:* Junior standing and permission of instructor

57.596 Research Methods in Social Psychology (3)

Research methods in social psychology (e.g. attitude measurement, systematic observational techniques, sociometric choice techniques). Individual research project is required so that a student will have comprehensive exposure to the methodology appropriate to his research. *Prerequisite:* Junior standing, including the following courses—Social Psychology, Psychological Statistics.

57.596 Perceptual Development (3)

Evaluation of perceptual development; emphasis on early environmental effects. *Prerequisites:* 2 courses in psychology or permission of the instructor.

57.596 Human Sexual Behavior (3)

Emphasis on psychological aspects of human sexual behavior. *Prerequisite:* 1 introductory course

57.596 Behavioral Crisis Intervention: Theory and Technique (3)

Techniques and methods of emergency intervention for acute behavioral disturbances (e.g. drug reactions, depression, suicide). *Prerequisites:* 57.450 and permission of advisor

57.596 Social Development (3)

Approaches to socialization with emphasis on selected areas of research (e.g. identification, dependency achievement and aggressive behaviors). *Prerequisites:* Junior standing and Developmental Psychology

57.600 Foundations of Experimental Research (3)

Prerequisite: Permission of Psychology Department.

57.601 Experimental Foundations of Clinical Psychology (3)

Study of behavior, characteristics of the individual through methods of clinical measurements, observation, and psychotherapy. Study of research in the area. *Prerequisite:* Permission of Psychology Department.

57.610 Instrumentation in the Behavioral Sciences (3)

Theory, demonstration and practical work covering the basic mechanical and electronic techniques used in behavioral research. *Prerequisite:* Permission of Psychology Department.

57.620 Conditioning and Learning (3)

Advanced analysis of operations and principles developed through the systematic study of classical and operant conditioning

57.630 Systems of Psychotherapy (3)

Review of major schools of thought concerning approaches to psychotherapy. *Prerequisite:* Permission of Psychology Department.

57.640 History and Systems of Psychology (3)

Philosophical and scientific background of modern psychology and contemporary problems in theory construction. *Prerequisite:* Permission of Psychology Department.

57.650 Assessment of Intellectual Functions, Aptitude and Interest Testing (3)

Examination of representative individual tests of intelligence and laboratory practice in the administration, scoring, and interpretation of these tests. *Prerequisite:* Permission of Psychology Department.

57.660 Personality Testing (3)

Examination of representative personality tests and their theoretical bases. Laboratory practice in the administration, scoring and interpretation of these tests. *Prerequisite:* Permission of Psychology Department.

57.670 Advanced Social Psychology (3)

Psychological factors in human social behavior. Social aspects of perception, motivation, thinking, language, attitudes, public opinion, persuasion and prejudice. *Prerequisite:* Permission of Psychology Department.

57.680 Student Culture, Community Consultation, Contemporary Issues (3)

Examination of developmental sequences of college students with reference to student ecology, role and value conflicts, vocational decision making, and social and sexual development.

57.685 Vocational Development and Occupational Information (3)

The meaning of work in society, vocational development as personality theory, evaluation and utilization of occupational and educational information. *Prerequisite:* Permission of Psychology Department

57.690 Independent Project in Psychology

57.691 Practicum Training I (3)

57.692 Practicum Training II (3)

57.693 Practicum Training III (3)

Practice under qualified supervision in technical procedures related to testing and psychotherapy. *Prerequisite:* Permission of Psychology Department.

57.695 Teaching Internship (3-6)

Responsibility for conducting courses. *Prerequisite:* Permission of Psychology Department

57.698 Directed Research (3-6)

57.797 Master's Thesis Seminar (3-6)

57.798 Seminars in Psychology

May be repeated for credit. *Prerequisite:* Permission of instructor

- I. Research and Theory on Psychopathology (3)
 - II. Psychometric Methods (3)
 - III. Research in Learning (3)
 - IV. Ethics and Professional Practice (3)
 - V. Research in Sensation and Perception (3)
 - VI. Personality Theory (3)
 - VII. Research in Physiological Psychology (3)
- Teaching Internship (3-6)

57.799 Doctoral Dissertation Seminar (6)

Public Personnel Administration—(See Govt. & Public Administration)

Public Relations—(See Communication; Business Administration)

Public Safety—(See Continuing Education)

Real Estate—(See Business Administration)

Recreation—(See Health, Physical Education and Recreation)

Religion—(See Philosophy and Religion)

Research and Development—(See Technology of Management)

Retailing—(See Business Administration)

Russian—(See Languages and Linguistics)

Sales Management—(See Business Administration)

School Counseling—(See Education)

Science, Technology and Government—(See Government)

Scientific and Technical Information Systems (CTA)—(See Continuing Education)

Social Organization—(See Sociology)

Social Psychology—(See Sociology)

Sociology

65.200 Introduction to Sociology (Course)

Fundamental characteristics of social relationships. Culture, personality, population and ecology, social institutions and processes, cultural change. Honors selection permitted.

65.221 Marriage and Family Living (Course)

Recent changes in the American family: modern dating, mate-selection, engagement, early marital adjustment, communication, money, the working wife, sex, and in-law problems. Not open to first semester freshmen.

65.340 The Family (Course)

Varying forms and functions of family organization in different societies. Evolution of American family patterns. Family relations and personality formation. Contemporary social changes influencing family life.

65.345 American Society (Course)

Analysis of contemporary American social institutions. American social system in historical perspective, value systems, ethnic composition, formal and informal structures.

65.346 Comparative Social Systems (Course)

Comparative analysis of contemporary societies, social institutions, value systems, formal and informal organization, integration and cohesiveness, relationships with other societies.

65.347 Race Relations (Course)

Sociological examination of relationship between and within racial groups; analysis of the social causes of prejudice and discrimination.

65.348 The Position of Women in the Social Order (Course)

Location and description of women in the population. Nature and extent of prejudice and discrimination against women. Impact and significance of female equality upon the social order.

65.350-351 Sociology of the Afro-American (Course)

Examination of racism in Europe. Process of Afro-American's assimilation into U.S. culture. Negro institutions, business, leadership, education, literature, music. Migration, poverty, discrimination. The demand for equality. 65.350 is prerequisite to 65.351.

65.352 Human Ecology (Course)

Relation of environment to distribution of population and to social structure and culture.

65.360 Social Change (Course)

Analysis of the causes, processes, and consequences of social change. Critical examination of theories of social change in the context of comprehensive analysis.

65.361 Social Disorganization (Course)

Analysis of social problems created by technical and cultural change. Social background of personal maladjustment.

65.365 Introduction to Social Work (Course)

Development of social welfare philosophy and practices. The areas of social work, group work, and community organization for public welfare. Community resources. Visits to selected agencies.

65.390 Readings in Sociology

65.391 Social Interaction (Course)

Sociological perspective of the interrelationship between individual and group. Socialization roles in small and complex organizations, mass communication and social movements.

65.396 Sociological Topics: Experimental Course (Course)

Topic announced each semester.

* 65.200 is a general prerequisite to all .300 and .400 level sociology courses.

65.410 Classical Sociological Theory (Course)

Historical background of the theories, concepts, and methods of sociology; emergence and characteristics of the most significant sociological systems.

65.411 Contemporary Sociological Theory (Course)

Systematic analysis of modern sociological theories and schools of thought. Logic and procedures of theory construction.

65.416 Introduction to Criminology (Course)

The nature, extent and social cause of delinquency and crime. The criminal law, the police and the administration of justice. The treatment of the offender.

65.420 Introduction to Social Research I (Course)

Nature, methods, principles, and techniques of scientific social research. Critical review of types of investigations; accent on field research. *Prerequisite:* 69.202.

65.421 Introduction to Social Research II (Course)

Continuation of Introduction to Social Research I. *Prerequisite:* 65.420.

65.422 Political Sociology (Course)

Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions.

65.445 Contemporary Communities (Course)

Social and political structures; ideologies of contemporary communities of the world, stressing American community types. Approaches to community research.

65.450 Population (Course)

Survey of world population trends. Introduction to methods of analysis. Determinants and consequences of variations in fertility, mortality, and migration.

65.490 Independent Project in Sociology**SOCIOLOGICAL THEORY**

Undergraduate students receive one course unit for .500 level courses.

65.510 Concepts of Sociology (3)

Systematic survey, critical analysis of sociological concepts. Emphasis on theoretical systems.

65.515 Law and the Social Order (3)

Functions of law in society; social origins and development of political authority around human rights. Changing role of law in the modern democratic state.

65.610 History of Sociological Theory I (3)

Comparative study of major schools of sociological theory in France, Great Britain, the United States. *Prerequisite:* permission of the instructor.

65.611 History of Sociological Theory II (3)

Comparative study of major schools of sociological theory in Germany, Austria, Italy. *Prerequisite:* permission of the instructor.

65.590 Readings in Sociology**65.711 Seminar in Sociological Theory (3)**

Intensive study of selected area or school of sociological thought. Emphasis on research in source materials. May be repeated for credit. *Prerequisite:* permission of instructor.

65.690 Independent Project in Sociology**SOCIAL RESEARCH**

Undergraduate students receive one course unit for .500 level courses.

65.511 Theory of Social Research (3)

Critical analysis of the logical and methodological problems of social investigation. Theoretical orientation of logically distinct approaches to sociological research.

65.512 Quantitative Methods in Sociology (3)

Elements of matrix algebra and their application to sociology and social statistics. Latent structure analysis in sociology. *Prerequisites:* 41.110, 69.202.

65.514 Historical Sociology (3)

Employment of sociological concepts in the study of historical processes. Principles and techniques for the analysis of documents and their relation to sociological research. *Prerequisite:* permission of the instructor.

65.612 Social Research Methods I (3)

Research procedures in sociology with emphasis on survey design, collection of quantitative data. *Prerequisite:* 69.202.

65.613 Social Research Methods II (3)

Research procedures in sociology with emphasis on analysis of quantitative data. *Prerequisite:* 65.612.

65.615 Opinion Measurement and Research (3)

Attempts to measure attitudes and opinions. Emphasis on the evaluation of alternate research methodologies. *Prerequisite:* 65.612.

65.691 In-Service Training Project (3-6)

Research project for qualified students working in government or private organization in areas related to their degree program. Project under supervision of faculty and organization concerned. *Prerequisite:* permission of department chairman.

65.712 Seminar in Social Research (3)

Investigation of recently developed techniques in various areas of social sciences and their application to sociology. May be repeated for credit. *Prerequisite:* permission of the instructor.

SOCIAL ORGANIZATION

Undergraduate students receive one course unit for .500 level courses.

65.540 Social Organization (3)

Social structure emphasizing the nature, functioning, integration of social institutions; types of organizations: family, clique, voluntary association, work, bureaucracy, community; social differentiation and stratification.

65.542 Sociology of Political Action (3)

Evaluation of recent theories of political sociology. Motivation in political behavior. Application of concepts of group participation from functional sociology and psychology. *Prerequisite:* 6 hours of government.

65.543 Sociology of the Workplace (3)

Sociology of work relationships using the workplace as the unit of analysis. Emphasis on industrialization and bureaucratization.

65.544 The Sociology of Occupations (3)

Sociology of work relationships using the occupation as the unit of analysis. Emphasis on the process of professionalization, and on professional roles in complex organizations.

65.547 Social Stratification (3)

Class, status and power relations in society. Caste, estate, social class, social mobility. Theories and empirical research findings of current importance.

65.548 Race and Culture Contact (3)

Problems and processes deriving from contacts of peoples different as to race and/or culture. Prejudice, discrimination, conflict, accommodation, acculturation, amalgamation, assimilation.

65.549 Sociology of Science (3)

Science as a major institution in modern society: historical development, social organization, inter-relationship; social, cultural determination of scientific activities; contributions from sociology of knowledge, invention, technology.

65.562 Sociology of Health (3)

Health problems in their social and economic aspects. Sociological methodologies and findings in the area of health and medical care.

65.567 Urban Redevelopment (3)

Theory and practice of urban redevelopment. Causal factors of city blight and slums; efforts of public, private agencies. Planning, financial, social, legislative aspects of urban redevelopment.

65.580 Sociology of Religion (3)

Concepts, methods and techniques in the sociological analysis of religion. Historical, comparative and functional approaches to religion. Emphasis on European and American Christianity.

65.714 Seminar in Social Organization (3)

Consideration of theoretical and methodological problems in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of the instructor.

POPULATION AND ECOLOGY

Undergraduate students receive one course unit for .500 level courses.

65.550 The City (3)

Patterns and process of urban society. Ecological and social organization of the modern city. Urban problems and trends. Emphasis on methods of research in the field. *Prerequisites:* 65.352, 69.202.

65.551 Analysis of Population Trends (3)

Measurement and analysis in demography with substantive treatment of population trends. Stable population theory; factors affecting fertility and mortality; population projection, population distribution. *Prerequisites:* 65.450, 69.202.

65.554 Morbidity and Mortality Analysis (3)

Concepts of a population; increment and decrement functions, measurement of morbidity, life table functions, survivorship function as research tool, biological aspects of life table. *Prerequisite:* 65.551.

65.715 Seminar in Population Studies (3)

Investigations of selected problems with related discussion of theory and methodology. May be repeated for credit. *Prerequisite:* permission of the instructor.

SOCIAL PSYCHOLOGY

Graduate students receive three credits for .500 level courses.

65.570 Social Psychology of Intergroup Tensions (3)

Intergroup prejudice and its relation to other aspects of personality and social behavior. Recent research on the determinants of intergroup attitudes. Techniques for the reduction of intergroup tension.

65.591 Person and Society (3)

Ways in which the individual becomes a person with tendencies to play various roles in different situations. Social control through interpersonal relations and self-conception.

65.592 Social Aspects of Mass Communication (3)

Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory.

65.593 Collective Behavior (3)

Analysis of crowd, mass, public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors, processes in emergence of social order.

65.716 Seminar in Social Psychology (3)

Consideration of sociological aspects of recent theoretical and methodological advances in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of the instructor.

SOCIAL CHANGE AND DISORGANIZATION

Undergraduate students receive one course unit for .500 level courses.

65.560 Social Conflict (3)

Sociological analysis of the history, typology, structure, function and nature of social conflict.

65.561 Public Welfare: Principles and Problems (3)

Principles underlying public welfare programs and major problems in the field. Organizational structure, methods of operation of federal, state, local agencies administering programs.

65.563 Causes of Crime (3)

Nature, causal factors in delinquent behavior. Natural history of delinquent careers. Programs and policies for controlling problems of delinquency and crime in urban areas.

65.566 Aging in Modern Life (3)

Social, economic, health problems related to the aging process. Changing social roles, attitudes. Provisions for the economic, health, psychological, social needs of the older person.

65.568 Treatment of the Offender I (3)

Critical examination of the theory, practices and problems in the fields of probation and parole of adult offenders
Prerequisite: 65.563

65.569 Treatment of the Offender II (3)

Critical examination of the theory, practices and problems in the institutional treatment of adult offenders
Prerequisite: 65.563

65.797 Master's Thesis Seminar (3-6)**65.799 Doctoral Dissertation Seminar (3-6)****Social Organization—(See Sociology)****Social Psychology—(See Sociology)****South and Southeast Asian Studies**

The following departments and schools offer courses in South and Southeast Asian studies: Anthropology, Economics, History, Languages and Linguistics, Philosophy and Religion, School of Government and Public Administration and School of International Service. For descriptions of these courses, see the respective department and school listing

ANTHROPOLOGY

- 3.539 Ethnology: South Asia: Caste**
- 3.539 Ethnology: Southeast Asia**
- 3.539 Ethnology: Peasant Society in South Asia**

ECONOMICS

- 19.318 Asian Economic Problems**
- 19.553 Economic Problems of Southern Asia: selected subjects**
- 19.559 Patterns and Problems of Economic Development in Asia**

HISTORY

- 29.341 Introduction to Asian Histories I**
- 29.342 Introduction to Asian Histories II**
- 29.545 Topics in Non-Western History I: History of India I**
- 29.546 Topics in Non-Western History II: History of India II**

LANGUAGES AND LINGUISTICS

- 37.113-4 Hindi Elementary I-II**
- 37.213-4 Hindi Intermediate I-II**
- 37.115-6 Indonesian Elementary I-II**
- 37.215-6 Indonesian Intermediate I-II**
- 37.109-10 Tamil Elementary I-II**
- 37.105-6 Thai Elementary I-II**
- 37.205-6 Thai Intermediate I-II**
- 37.111-2 Vietnamese Elementary I-II**
- 37.211-2 Vietnamese Intermediate I-II**
- 37.490 Reading Course (open to those who wish to pursue South or Southeast Asian languages at an advanced level)**
- 37.700 Visiting Scholars' Seminar: Languages of Southeast Asia**

PHILOSOPHY AND RELIGION

- 47.305 Philosophies of the East**
- 47.383 Comparative Religion**
- 47.550 Studies in Non-Christian Religions. A two-year program studying a major religion each semester: Islam, Hinduism, Buddhism, Confucianism, Taoism.**

SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION

- 53.546 Government and Politics of South Asia**
- 53.547 Government and Politics of Southeast Asia**
- 53.605 Non-Western Political Theory (3)**
- 53.632 Government and Politics of Developing Nations**

SCHOOL OF INTERNATIONAL SERVICE

- 33.415 Introduction to South Asia**
33.350 Introduction to the non-Western World: South and West Asia
33.417 Introduction to Southeast Asia
33.526 South Asia in World Politics
33.527 International Relations of Southeast Asia
33.586 Seminar on South and Southeast Asia: Various topics
33.645 Labor in an area: South and East Asia
33.653 Agrarian Problems: East and South Asia
33.788 Seminar on South and Southeast Asia

**South and Southeast Asia—
(See Preceding Studies)****Soviet Union and Eastern Europe—(See
International Studies)****Spanish—(See Languages
and Linguistics)****Special Education—(See
Education)****Speech Arts****67.110 Public Speaking (Course)**

Principles of public speaking, sound standards for evaluating speeches, and practice in the preparation and presentation of several types of public addresses.

67.116 Make-up I (Quarter-course)

Introduction to stage make-up. Basics of stage make-up, make-up material, make-up lists, color charts, facial anatomy, corrective make-up.

67.117 Make-up II (Quarter-course)

Continuation of Make-up I

67.118 Intercollegiate Forensics (Quarter-course)

Participation in intercollegiate debate program.

67.119 Speech for the Theatre (Quarter-course)

Provides the theatre student with an understanding of concepts and techniques relevant to the development of effective stage speech.

67.122 Introduction to Theatre (Course)

Survey of the various phases of contemporary theatre in relationship to its historical development, dramatic literature, and aesthetics.

67.124 Survey of Theatre I (Course)

Major developments in the playscript and physical theatre from Greeks to 17th Century. Analysis of these factors made from historical and production standpoint.

67.125 Survey of Theatre II (Course)

Continuation of Survey of Theatre I, with emphasis on late 19th and 20th Century playscript, design and theory.

67.150 Argumentation (Course)

Use of reason, nature and forms of argument, structure of argumentative discourse, and relationship of delivery to effective argument.

67.170 Oral Interpretation (Course)

Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience.

67.300 Technical Theatre I (Course)

Theory of construction, rigging methods and materials for technical aspects of theatre production with application through laboratory experience.

67.301 Technical Theatre II (Course)

Theory of design techniques and their functions in the theatre. Laboratory experience provided.

67.322 Stage Movement (Course)

Analysis and understanding of the body movement as the actor's visual means of communication with an audience.

67.323 Acting I (Course)

Principles, theories, and philosophical origins of the dramatic performance expressed through contemporary entertainment media. *Prerequisites:* 67.322 and 67.170.

67.324 Acting II (Course)

Analysis of the actor's problem through a detailed exploration of the craft and techniques of the actor related to the performing arts. *Prerequisites:* 67.322, 67.323.

67.340 Theatre Management (Quarter-course)

An investigation into the practical and theoretical elements of theatre business management, box office procedures and public relations including professional and non-professional theatre.

67.350 Introduction to Rhetorical Communication (Course)

Nature, scope and significance of the tradition of rhetoric as expressed in works of major theorists from antiquity to present. (Non-performance course)

67.351 Introduction to Public Address (Course)

Critical examination of the ideology, strategy, and techniques of public speakers who have influenced the thoughts and directions of modern democratic and totalitarian societies. (Non-performance course)

67.390 Readings in Speech Arts**67.490 Independent Project in Speech Arts**

Advanced Courses

Undergraduate students enrolled in 500 level courses will receive one course unit

67.510 Advanced Public Speaking (3)

Theory and practice of speech composition with emphasis on style and content. *Prerequisite:* 67.110 or permission

67.512 Public Address in Contemporary Society (3)

Analyses of the character and role of speeches addressed to selected 20th century issues.

67.520 Scene Design I (3)

Fundamentals of perspective drawing, graphic presentation of floor plans and elevations for design in the performing arts. Laboratory. *Prerequisite:* permission.

67.521 Scene Design II (3)

Fundamentals of design for the performing arts; preparation of sketches and drawings based on the principal styles and periods in theatres. *Prerequisite:* permission.

67.524 Costume Design I (3)

The history of theatrical costumes from antiquity to late 16th century. *Prerequisite:* permission of instructor.

67.525 Costume Design II (3)

Costuming from the late 16th century to 1914. *Prerequisite:* permission of instructor.

67.532 Directing I (3)

Direction in the theatre, including comparison with and contrast to the other dramatic media. *Prerequisite:* 67.323.

67.542 Directing II (3)

Seminar laboratory course in problems of directing plays for the theatre. *Prerequisites:* 67.532 and consent of the instructor.

67.543 Acting III (3)

A seminar laboratory course dealing with the advanced study of the actor's problem with particular emphasis on various theatrical styles.

67.545 Lighting Design (3)

Lighting instruments, control boards and the use of lighting as an integral part of play design for the performing arts. *Prerequisite:* permission of the instructor.

67.550 History of Theatre I (3)

Development of the stage and drama from Greek through Renaissance. *Prerequisite:* advanced undergraduate standing

67.551 History of Theatre II (3)

Development of the stage and drama from the 17th century to 1914. *Prerequisite:* 67.550 desirable.

67.556 History of the American Theatre (3)

The theatre in America as a cultural force from the colonial period to 1920. *Prerequisite:* advanced undergraduate standing.

67.560 Dramatic Theory and Criticism (3)

Historical criticism as related to modern dramatic theory and criticism. Weekly written criticisms of dramatic productions required. *Prerequisites:* 67.550-551, plus 6 additional hours of approved drama or English courses.

67.561 Playwriting (3)

Practical experience in writing the full-length play. May be repeated. *Prerequisite:* permission.

67.570 Reader's Theatre (3)

Preparation of more complex literary forms for platform presentation. *Prerequisites:* 67.170 plus 67.323 or consent of the instructor

67.579 Seminar in Methods of Teaching Speech (3)

Designed to acquaint the prospective speech teacher with the philosophy, theory, practice and methods of speech education. *Prerequisite:* 4 courses in Speech Arts.

67.580 Communication in Small Groups (3)

Contemporary theories and research findings on interpersonal and small group communication; problems of decision making in small groups. *Prerequisite:* permission of the instructor.

67.590 Readings in Speech Arts**67.594 Seminar in Rhetorical Communication (3)**

Principal theorists in the development of rhetorical theory. Periods and works studies announced semester the course is offered. May be repeated for credit. *Prerequisite:* Graduate standing or permission.

67.595 Seminar in Public Address (3)

Study of the public address of a specific period or problem area through critical study of the works and methods of its principal speakers. Topics announced from semester to semester. May be repeated for credit.

67.596 Seminar in Theatre (3)

Problems in items of theatrical presentation of theatre history. Topics will be announced the semester the course is offered. May be repeated for credit.

67.602 Research Seminar in Speech Arts (3)

Required seminar of all graduate students in the Department of Speech Arts. Research problems vary from semester to semester

67.610 Problems in Theatrical Design (3)

Special design problems designed to meet the individual student's interests in design for drama, ballet and opera. *Prerequisite:* permission.

67.612 Problems in Technical Theatre (3)

An intensive survey of all phases of technical theatre for the graduate student.

67.614 Directing III (3)

A seminar-laboratory course dealing with the problems of directing plays for the theatre. *Prerequisite:* Graduate standing and permission of instructor.

67.650 Seminar in Theatre History (3)

Intensive study of selected problems in theatre history.

67.690 Independent Project in Speech Arts**67.797 Master's Thesis Seminar (3-6)****67.798 Non-Thesis Option Seminar (3-6)****RELATED COURSES****17.601 Experimental Research in Communication**

**17.201 Introduction to Human
Communication**

**Statistics—(See
Mathematics and
Statistics)**

Studio Art—(See Art)

**Supervision and
Curriculum Develop-
ment—(See Education)**

**Technology of Management
—(See Continuing
Education)**

**Theatre—(See Speech
Arts)**

**Traffic Management—(See
Business Administration;
Transportation)**

**Transportation—(See
Business Administra-
tion)**

**Urban Affairs—(See
Government; Public
Administration)**

**Visual Communication—
(See Communication)**

**Western Europe—(See
International Studies)**

**World Human Needs—(See
International Studies)**

1969-70 Faculty

The faculty list below covers the
1969-1970 academic year only.

1970-71 Faculty

THE FACULTY LIST BELOW COVERS THE 1970-71 ACADEMIC YEAR ONLY.

A

Richard G. Abbott, B.S., Trinity College; M.S., Stanford. *Professorial Lecturer, Continuing Education.*

William Aldred, B.A., North Carolina; M.S., Texas A & M. *Professorial Lecturer, Continuing Education.*

Mary H. Aldridge (1955), B.S., Georgia; M.A., Duke; Ph.D., Georgetown. *Professor of Chemistry.*

Dale L. Anderson, B.S., Oregon State; M.S., Purdue. *Lecturer, Business Administration.*

Richard R. Anderson (1966), A.A., Clark Junior College; B.S., Lewis and Clark; M.S., Ph.D., Maryland. *Assistant Professor of Biology.*

Peter J. Andrus (1969), B.S., M.S. Canisius; Ph.D., University of Texas. *Assistant Professor of Chemistry.*

Cyrus A. Ansary, B.S., American; LL.B., Columbia. *Lecturer, Finance, Business Administration.*

Carl G. Anthon (1961), B.A. Chicago; M.A., Ph.D., Harvard. *Professor of History.*

Steven H. Arnold, B.A., Occidental College; M.A., Johns Hopkins School of Advanced International Studies. *Assistant Dean, School of International Service; Instructor, International Services.*

Martin Atlas, A.B., New York; A.M., Columbia; LL.B., George Washington. *Professorial Lecturer, Tax Aspects of Real Estate, Business Administration.*

Gregory Auleta (1969), B.A., Colgate; M.A., Indiana. *Instructor of English.*

B

W. Michael Bailey (1966), B.A., North Texas State. *Instructor of Economics.*

Nathan A. Baily (1946), B.S. in S.S., College of the City of New York; M.A., Ph.D., Columbia. *Dean, Business Administration; Professor, Business Management.*

John W. Baker, B.A., University of Texas; Ph.D., University of California, Berkeley. *Visiting Professor, Government and Public Administration.*

Kenneth Baker (1966), B.A., M.A., Kansas. *Assistant Professor of Speech Arts.*

C. Canby Balderston (1966), B.S., M.A., Ph.D., Pennsylvania. *Adjunct Professor, Finance, Business Administration.*

Umberto Balducci (1969), B.A., St. Vincent College; M.A., University of Pittsburgh. *Instructor of English.*

Esther W. Ballou (1955), B.A., Bennington; M.A., Mills College; Graduate Degree, Julliard. *Assistant Professor of Music.*

Boris I. Baranovic (1966), B.A., in Dramatics, Amherst; M.F.A., Yale. *Assistant Professor of Speech Arts.*

Graham John Barker-Benfield (1969), B.A., M.A., Trinity College, Cambridge; Ph.D., University of California at Los Angeles. *Assistant Professor of History.*

Marie Barksdale (1970), B.A., N.Y.U. *Lecturer, Continuing Education.*

Nancy Barrett (1966), Goucher; M.A., Ph.D., Harvard. *Assistant Professor of Economics.*

Charles I. Bartfeld (1966), M.B.A., Ph.D., Columbia. *Director, Operations Analysis Program. Associate Professor, Management Sciences, Business Administration.*

Patricia Bartlett (1968), B.A., Wheaton; M.S., American. *Instructor of Biology.*

Richard A. Bassler, B.S., University of Colorado; M.S., George Washington. *Deputy Director for Computer Systems; Assistant Professor of Information Science, Continuing Education.*

Merritt C. Batchelder (1935), A.B., Hillsdale; M.A., Columbia; Ph.D., Iowa. *Professor of English.*

William S. Bates, B.S., Maryland; M.A., American. *Lecturer, Continuing Education.*

Martin A. Baum, B.S., Drexel Institute of Technology; M.S., Johns Hopkins. *Professorial Lecturer, Continuing Education.*

William A. Bayse, B.S., Roanoke College. *Lecturer, Continuing Education.*

Arthur P. Bean, Jr. (1963), B.A., M.A., Virginia. *Assistant Professor of English.*

Douglas N. Beatty, B.S.E., M.S.E., Princeton. *Professorial Lecturer, Continuing Education.*

Robert L. Beisner (1965), M.A., Ph.D., Chicago. *Associate Professor of History.*

Gerald E. Bennington, B.S.E., M.S., University of Michigan; Ph.D., Johns Hopkins. *Professorial Lecturer, Continuing Education.*

Alan Berman (1969), B.A., Johns Hopkins; M.A., Catholic University. *Instructor of Psychology.*

Billy E. Berry, B.P.A., University of Mississippi; M.B.A., American. *Lecturer, Continuing Education.*

Madeleine Betts (1969), B.A., M.A., University of Ottawa; Ph.D., University of Illinois. *Assistant Professor of Languages and Linguistics.*

John A. Bielie, B.A., M.A., Maryland. *Lecturer, Continuing Education.*

Lavell M. Bigelow, B.S., U.S. Navy Post Graduate School; M.A., George Washington. *Lecturer, Continuing Education.*

Jay Louis Binder, B.S., M.B.A., American. *Lecturer, Business Policy, Business Administration.*

Martin Binkin, B.S., B.A., Washington University; M.B.A., Michigan. *Professorial Lecturer, Continuing Education.*

Barbette Blackington (1967), B.A., Colby; M.A., Howard. *Assistant Professor of Sociology.*

Robert O. Blanchard (1965), B.S., M.S., Northwestern; Ph.D., Syracuse. *Associate Professor of Communication.*

Edward L. Bliss, Jr. (1967), B.A., Yale. *Associate Professor of Communication.*

Barry Blose (1969), B.A., Yale; M.A., Ph.D., Columbia. *Assistant Professor of Philosophy.*

John James Bodine (1968), B.A., University of Oklahoma; M.A., Ph.D., Tulane. *Associate Professor of Anthropology.*

Edward Gordon Boehm (1968), B.S., Frostburg. *Instructor of Health, Physical Education and Recreation.*

John Boren (1969), B.A., University of Texas; M.A., Ph.D., Columbia. *Professor of Psychology.*

Vera Z. Borkovec (1966), M.A., Hollins; M.A., American. *Assistant Professor of Languages and Linguistics.*

W. Donald Bowles (1957), B.A., University of Washington; M.A., Ph.D., Columbia. *Vice President, Academic Affairs; Professor of Economics.*

Robert U. Bowman, B.A., Michigan State; M.C.S., Texas A & M. *Lecturer, Continuing Education.*

Orton W. Boyd (1959), B.A., M.A., Ohio State, C.P.A. *Professor Emeritus, Accounting and Taxation, Business Administration.*

Robert P. Boynton (1969), B.A., Calvin College; M.A., Ph.D., University of Michigan. *Dean for Graduate Studies and Research; Professor of Government and Public Administration.*

Lothar Brabanski (1957), Master, Academy of Fine Arts, Berlin. *Associate Professor of Art.*

Mary E. Bradshaw (1950), B.A., Pennsylvania College; M.A., Ph.D., Wisconsin. *Professor of International Relations, International Service.*

David J. Brandenburg (1948), B.S., Bowdoin; A.M., Ph.D., Columbia. *Professor of History.*

Leonard L. Brannan, M.B.A., Harvard. *Lecturer, Production, Business Administration.*

Ann Baker Braun (1962), B.A., M.A., Boston; Ph.D., New Hampshire. *Associate Professor of Chemistry.*

Richard M. Bray (1954), B.A., M.A., Colorado. *Professor of Government and Public Administration. On leave 1969-70.*

Richard C. Breakiron, B.S., U.S. Military Academy; M.B.A., American. *Lecturer, Continuing Education.*

Joseph P. Brennan, A.B., Notre Dame; M.B.A., American. *Lecturer, Marketing, Business Administration.*

Donald R. Brenner, B.S., LL.B., Ohio State. *Professorial Lecturer, Business Law, Business Administration.*

Edward J. Breyer (1961), B.S., M.S., Ph.D., Maryland. *Professor of Biology.*

Earl Brill (1965), A.B., University of Pennsylvania; Th.B., Philadelphia Divinity School; Th.M., Princeton Theological Seminary; Ph.D., The American University. *Professorial Lecturer in American Studies, International Service. Episcopal Chaplain.*

Raymond F. Brogan, B.S., St. Joseph's College; M.A., George Washington. *Professorial Lecturer, Continuing Education.*

Fred R. Brown, A.B., M.A., Ph.D., Pennsylvania. *Adjunct Professor of Government and Public Administration.*

Roger H. Brown (1965), A.B., A.M., Ph.D., Harvard. *Associate Professor of History. On leave 1969-70.*

Coralie Bryant (1967), A.B., Barnard; Ph.D., London School of Economics. *Assistant Professor of Government and Public Administration. On leave 1969-70.*

Turgut I. Burakreis, B.S., M.S., U.S. Naval Academy and Professional School. *Lecturer, Continuing Education.*

Benjamin Burdetsky, B.S., M.S., Temple; Ph.D., American. *Professorial Lecturer, Business Administration.*

Sumner O. Burhoe (1956), B.S., Massachusetts; M.S., Kansas State; Ph.D., Harvard. *Professor of Biology.*

Frederic S. Burin, II (1961), B.S., College of the City of New York; M.A., Syracuse; Ph.D., Columbia. *Professor of Government and Public Administration.*

Dinshaw Burjorjee (1966), A.B., Catholic University; M.A., Georgetown. *Instructor of English.*

Edward I. Burkart (1960). B.S., M.S., Georgetown; Ph.D., University of Pennsylvania. *Associate Professor of Languages and Linguistics.*

Geoffrey L. Burkhart (1968). B.A., Oakland. *Instructor in South Asian Studies, Joint: Anthropology; International Service.*

Kirk L. Burns (1968). B.S., U.S. Naval Academy; M.A., Washington; Ph.D., University of Paris. *Professorial Lecturer, Business Administration.*

Robert O. Burns, B.S., Knox College; M.S., Ph.D., University of Illinois. *Professorial Lecturer, Continuing Education.*

William J. Burns, B.S., Maryland; M.B.A., American. *Professorial Lecturer, Transportation, Business Administration.*

Samuel Engle Burr, Jr. (1947). Litt.B., Rutgers; M.A., Wisconsin; M.A., Columbia; Ed.C., Cincinnati. *Emeritus Professor of Education.*

George P. Bush (1948). M.B.A., Harvard; M.A., Ph.D., American. *Emeritus Professor, Government and Public Administration.*

James R. Butts (1964). B.S., Virginia Polytechnic; M.S., New York. *Assistant Professor, Marketing, Business Administration.*

Richard Butwell (1968). B.A., Tufts; M.A., Indiana; D.Phil., Oxford. *Professor of Southeast Asian Studies; Director, Center for South and Southeast Asian Studies, International Service.*

C

Earl Callen (1968). B.A., M.A., University of Pennsylvania; Ph.D., M.I.T. *Professor of Physics.*

W. Donald Calomiris, A.B.A., American. *Professorial Lecturer, Business Administration.*

Muriel Cantor (1968). B.A., M.A., Ph.D., UCLA. *Assistant Professor of Sociology.*

Joseph F. Caponio, B.A., St. Anselm's College; M.S., Ph.D., Georgetown. *Professorial Lecturer, Continuing Education.*

Charles T. Caprino, B.S., Columbia. *Professorial Lecturer, Continuing Education.*

Robert A. Carlson, B.S., U.S. Coast Guard Academy; M.S., Purdue. *Professorial Lecturer, Continuing Education.*

George K. Chacko, B. Comm., Calcutta; M.A., Madras X'an College; Ph.D., New School Graduate Faculty. *Professorial Lecturer, Continuing Education.*

Marie A. Charbonneau (1960). Baccalaureat, Licence en-Droit, University of Paris; Etudes Pratiques d'Anglais, Sorbonne. *Assistant Professor of Languages and Linguistics.* On leave 1969-70.

Benson T. Chertok (1966). B.S., M.S., M.I.T.; Ph.D., Boston. *Assistant Professor of Physics.*

Robert J. Chinniss (1964). B.S., East Carolina; M.Ed., North Carolina; Ed.D., Maryland. *Associate Professor of Education.*

Warren I. Cikens, A.B., Harvard, M.P.A., Harvard. *Professorial Lecturer, Government and Public Administration.*

Charles M. Clark (1941). A.B., M.A., Ph.D., Cornell. *Professor of English.*

William B. Clark, B.S., U.S. Coast Guard Academy; M.A., American. *Lecturer, Continuing Education.*

Robert E. Cleary (1965). B.A., M.A., Montclair State College; M.A., Ph.D., Rutgers. *Dean for Academic Development; Professor of Government and Public Administration.*

W. Wendall Cleland, B.A., Westminster; M.A., Princeton; Ph.D., Columbia. *Professor of Middle East Studies, Emeritus, International Service.*

Ralph I. Cole, B.S., Washington University; M.S., Rutgers. *Director for Graduate R & D Program; Associate Professor, Continuing Education.*

Richard F. Cook, A.B., National University of Economics and Finance; B.C.S., Benjamin Franklin. *Director, Applied Administrative Management Program; Adjunct Professor of Government and Public Administration.*

Theodore A. Coulombis (1965). B.A., Connecticut; M.A., Georgetown, Connecticut; Ph.D., American. *Associate Professor of International Relations.*

Billy G. Coward (1964). B.S., B.A., M.Ed., American. *Assistant Professor of Health, Physical Education and Recreation.*

Albert B. Crawford, Jr., B.S., U.S. Military Academy; M.S.E.E., M.S.I.E., Stanford. *Lecturer, Continuing Education.*

Horace D. Crawford (1946). A.B., Hillsdale. *Professor of Communication.*

Chester A. Crocker, B.A., Ohio State University; M.A., Ph.D., Johns Hopkins University. *Professorial Lecturer, Government and Public Administration.*

William C. Cromwell (1963). B.A., Emory; M.A., Ph.D., American. *Associate Dean, School of International Service; Professor of International Relations, International Service.*

John D. Cronin (1967). B.A., Kenyon College; M.A., Chicago; M.S.L., Georgetown; Ph.D., Bonn. *Assistant Professor of Languages and Linguistics.*

David Crosby (1966). B.A., American; M.A., Ph.D., Arizona. *Assistant Professor of Mathematics.*

James A. Cross, B.A., California State College. *Lecturer, Continuing Education.*

Charles Crowder (1967), B.M., Lawrence College; M.A., Columbia. *Assistant Professor of Music.*

Richard C. Cuba, B.S.E.E., Drexel Institute of Technology; M.B.A., George Washington. *Lecturer, Continuing Education.*

Paul R. Curtis (1960), B.A., College of Wooster; M.S., Ph.D., Ohio State. *Associate Professor of Biology.*

Mary Hannah Curzan, B. A., Michigan State ; M.A., Yale. *Professorial Lecturer, Government and Public Administration.*

Herschel Cutler (1967), B.S., Boston; M.B.A., Pennsylvania; Ph.D., Syracuse. *Associate Professor, Business Administration.*

Dana Czapskiy (1970), B.A., Hofstra. *Instructor, Continuing Education.*

D

Emile Daniel (1969), Licence en Sciences, Faculte Des Sciences, Rennes, France; Ph.D., Universite de Paris. *Visiting Professor of Physics.*

Robert A. D'Arista (1961), New York University; Columbia; Academie Grand Chaumiere, Paris. *Associate Professor of Art.*

Nancy Davenport (1969), B.S., M.S., Duke. *Assistant Professor of Medical-Surgical Nursing.*

Leo David, B.A., George Washington; M.B.A., Harvard. *Professorial Lecturer, Business Administration.*

Charles M. Davis (1962), A.B., M.S., Ph.D., Catholic University. *Associate Professor of Physics.*

Dan R. Davis, B.S., Rensselaer Polytechnic Institute. *Lecturer, Continuing Education.*

Harold E. Davis (1947), B.A., Hiram; M.A., Chicago; Ph.D., Western Reserve. *University Professor, Joint: History; International Service.*

Earl H. De Long (1963), B.S., M.A., Ph.D., Northwestern. *Dean and Professor of Government and Public Administration.*

John W. Devor (1956), A.B., M.A., Kansas; Ph.D., Chicago. *Professor of Education.*

Gloria W. De Wit (1965), B.S., M.S., Ph.D., Illinois. *Assistant Professor of Physics.*

Gita Dhillon (1966), B.S., Madras; M.Ed., Teachers College, Columbia. *Assistant Professor of Maternal-Child Nursing.*

Thomas V. Di Bacco (1965), B.A., Rollins; M.A., Ph.D., American. *Associate Professor of History.*

Stanley S. Dick, B.A., Hunter; M.S., Ph.D., Adelphi. *Professorial Lecturer, Continuing Education.*

Stephen K. Dietz, B.E.E., George Washington; M.A., Villanova. *Lecturer, Continuing Education.*

James M. Dimitroff, B.S., University of Pittsburgh; M.S., University of Louisville. *Professorial Lecturer, Continuing Education.*

Lowell R. Ditzen, B.A., William Jewell; B.D., McCormick Theological Seminary; D.D., Park; LL.D., Central. *Lecturer, Church Management, Business Administration.*

Klee Dobra, Lecturer, Marketing, Business Administration.

Lawrence Dobrow, B.A., New York. *Professorial Lecturer, Advertising, Business Administration.*

Bernard T. Dodder, B.S., Oklahoma A & M; M.S., Iowa State; C.P.A., State of Maryland. *Professorial Lecturer, Insurance, Business Administration.*

John F. Donahue (1968), B.A., M.A., Fordham. *Instructor of English.*

George S. Doore, B.A., Ohio Wesleyan; M.A., American. *Lecturer, Continuing Education.*

Dennis D. Dorin (1967), B.A., Arizona State; M.A., Virginia. *Assistant Professor of Government and Public Administration.*

Dail D. Doucette, B. A., Fresno State College; M.S., University of Southern California. *Lecturer, Continuing Education.*

Guy Douyon, Licence en Droit, Haiti; M.B.A., American. *Assistant Professor, Business Management, Business Administration.*

Harold N. Dreibelbis, B.S., U.S. Military Academy; M.S., Stanford. *Lecturer, Continuing Education.*

John Henry Drewanz, B.S. in I.E., B.S. in Acctg., Maryland; M.B.A., Harvard. *Lecturer, Accounting, Business Administration.*

William C. Dulin (1968), A.B., Western Reserve; M.B.A., Harvard; Ph.D., American. *Director, Business Management Program, Business Administration; Associate Professor, Business Administration.*

Martin Van Burren Dunning, III, B.S., Maryland; M.B.A., American. *Lecturer, Continuing Education.*

Julius B. Dupeza, B.S., U.S. Coast Guard Academy; M.S., Naval Post Graduate School. *Professorial Lecturer, Continuing Education.*

Harold A. Durfee (1955), Ph.B., Vermont; B.D., Yale; Ph.D., Columbia. *William Frazer McDowell Professor of Philosophy.*

E

Ivan Eames (1969), A.B., Howard; M.A., Maryland. *Assistant Professor of Sociology.*

Chester B. Earle (1955), B.A., Ph.D., Texas. *Professor of Government and Public Administration.*

Henry Adler Einhorn, B.S., Syracuse; M.A., Ph.D., Columbia. *Professorial Lecturer, Managerial Economics, Business Administration.*

Dennis Eisen, B.A.E., New York University; M.S., Brown, Ph.D., Adelphi. *Professorial Lecturer, Continuing Education.*

William Y. Elliott (1963), B.A., M.A., Vanderbilt; Ph.D., Yale. *University Professor Emeritus, Joint: International Service; Government and Public Administration.*

Norman R. Enger, B.A., College of the City of New York; M.A., Columbia. *Professorial Lecturer, Continuing Education.*

Irene W. Eno (1959), Cert., Sacker's School of Design. *Associate Professor of Art.*

Philip H. Enslow, Jr., B.S., U.S. Military Academy; M.S., Ph.D., Stanford. *Professorial Lecturer, Continuing Education.*

Russell Clifford Eustice, B.A., Colgate. *Lecturer, Sales Management, Business Administration.*

F. Gunther Eyck (1962), B.A., Alma College; M.A., Ph.D., New York University; M.S., Columbia. *Adjunct Professor of International Relations, International Service.*

F

Marvin L. Fair (1958), B.A., Ohio; M.A., Ph.D., Ohio State. *Professor Emeritus, Transportation and Logistics, Business Administration.*

Harold E. Fassberg, B.A., Ohio State; M.A., University of Pittsburgh; Ph.D., American. *Interim Deputy Director for Operations Research; Adjunct Professor, Continuing Education.*

George E. Fauth, Jr., B.S., University of Baltimore; M.S., George Washington. *Lecturer, Continuing Education.*

Richard A. Fehnel (1970), B.A., M.P.A., University of Washington. *Assistant Professor of Government and Public Administration.*

George M. Ferris, Jr., B.S.E., Princeton; M.B.A., Harvard. *Lecturer, Finance, Business Administration.*

Charles Ferster (1969), B.S., Rutgers; M.A., Ph.D., Columbia. *Professor of Psychology.*

Boris Filipoff (1969), M.A., Leningrad Institute. *Associate Professor of Languages and Linguistics.*

John J. Finan (1961), A.B., A.M., Washington University; Ph.D., Harvard. *Professor, International Service.*

Susan Finkelstein (1969), B.S., Columbia; M.S., Catholic University. *Assistant Professor of Psychiatric Nursing.*

Patricia Finn, (1968), B.S., M.S., Catholic University. *Assistant Professor of Psychiatric Nursing.*

Jeff Fishel (1966), A.B., M.A., San Diego State. *Assistant Professor of Government and Public Administration.*

Robert M. Fisher, A.B., Michigan; M.B.A., Ph.D., Columbia. *Lecturer, Real Estate, Business Administration.*

Donald H. Flanders (1963), B.A., Reed; M.A., Maryland. *Assistant Professor of Mathematics and Statistics.*

Juanita Fletcher (1969), B.A., Xavier University; M.A., Teacher's College, Columbia. *Assistant Professor of Education.*

Filemon C. Flores (1968), B.S.M.E., University of Philippines; M.B.A., Ph.D., UCLA. *Assistant Professor of Business Administration.*

William Evans S. Flory, A.B., Wooster; A.M., Ph.D., Duke. *Associate Professor, Marketing, Business Administration.*

William L. Flynn, B.S., St. Procopius College. *Lecturer, Continuing Education.*

Kenneth A. Fogash, B.S., Pennsylvania State University. *Lecturer, Continuing Education.*

Robert T. Foley (1964), B.S., Massachusetts; M.S., Lafayette; Ph.D., Texas. *Professor of Chemistry.*

Walker J. Musa Foster (1970), B.A., American. *Lecturer, Continuing Education.*

Charles W. Fotis (1961), B.A., M.Ed., M.S., Tufts; Ph.D., American. *Adjunct Professor, Continuing Education.*

James C. Fowlkes, B.S.E.E., West Virginia University; M.E.A., George Washington. *Lecturer, Continuing Education.*

James D. Frady, Jr., (1964), A.B., M.Ed., North Carolina. *Assistant Professor of Health, Physical Education, and Recreation.*

Robert H. Frailey (1949), B.S., M.A., American. *Professor of Health, Physical Education and Recreation.*

Elke Frank, B.A., M.A., Florida State; Ph.D., Harvard. *Associate Professor of International Relations, International Service.*

Thomas J. Freaney, Jr., B.A., Temple University; LL.B., Catholic University. *Professorial Lecturer, Continuing Education.*

Donald H. Freeman, B.S., Northeastern; M.S., American. *Lecturer, Continuing Education.*

A. Lee Fritschler (1964), B.A., Union; M.P.A., Ph.D., Syracuse. *Associate Professor of Government and Public Administration.*

Wayne P. Fuhrman, B.S., New Jersey State College; M.P.A., American. *Lecturer, Continuing Education.*

Richard M. Furr (1969), B.A., William & Mary; M.A., Ph.D., Tennessee. *Assistant Professor, Business Administration.*

G

Ralph H. Gabriel, B.A., M.A., Ph.D., Yale. *University Professor, Emeritus, International Service.*

William Howard Gammon, B.A., George Washington; M.A., American. *Assistant Professor of Information Science, Continuing Education.*

Mary D. Garrard (1964), A.B., Newcomb; A.M., Radcliffe. *Assistant Professor of Art.*

Wilfred J. Garvin, B.A., St. Francis Xavier; M.A., Ph.D., Catholic University. *Professorial Lecturer, Business Economics, Business Administration.*

Robert F. Gates (1946), Detroit School of Arts and Crafts; Art Students League of New York; Phillips Gallery; Colorado Springs Fine Arts Center. *Professor of Art.*

Daniel Geiser (1966), A.B., Juniata; M.A., Ohio State; Ed.D., Columbia. *Professor of Health, Physical Education and Recreation.*

Alan Gelberg, B.S., City College of New York; M.S., University of Missouri. *Professorial Lecturer, Continuing Education.*

John A. Gilberto, B.S., Boston College. *Lecturer, Continuing Education.*

Josephine Gimble (1966), B.S., American; M.S., Catholic University. *Assistant Professor of Medical-Surgical Nursing.*

John J. Giubilato, B.S., Trenton State College; M.A., American. *Lecturer, Continuing Education.*

Edward Glaaser, B.A., M.S., Wisconsin. *Lecturer, Continuing Education.*

Frederic H. Glade, Jr., B.S., M.B.A., Ph.D., New York. *Adjunct Professor, Marketing, Business Administration.*

Sidney Glassman, B.S., City College of New York; M.A., Columbia. *Lecturer, Real Estate, Business Administration.*

Herbert Glazer (1968), A.B., A.M., Ph.D., Boston. *Professor, Marketing and Business Management, Business Administration.* On leave, 1969-70.

Lawrence M. Glisson, B.S., George Washington; M.A., East Carolina University. *Associate Director, Transportation Institutes, Business Administration.*

John E. Gogarty, B.S., Maryland. *Lecturer, Real Estate Appraisal, Business Administration.*

Jessica W. Goldin (1966), B.A., Long Island University; M.A., Columbia. *Assistant Professor in Languages and Linguistics.*

Gillian Gollin (1967), B.S., University of London; M.A., Ph.D., Columbia. *Acting Chairman, Department of Sociology; Associate Professor of Sociology.* On leave 1969-70.

Harvey Golomb, B.S., M.I.T.; M.B.A., Harvard Graduate School of Business Administration. *Lecturer, Continuing Education.*

Dorothy D. Gondos (1947), B.A., Swarthmore; M.A., Ph.D., Pennsylvania. *Professor of History.* On leave 1969-70.

Richard W. Goodale, B.A., George Washington; M.A., American. *Lecturer, Continuing Education.*

Charles H. Goodman (1956), B.S., Wilson Teachers College; M.S., Ph.D., Pennsylvania State. *Associate Dean; Professor of Government and Public Administration.*

George H. Goodrich, B.A., Williams; LL.B., Virginia. *Lecturer, Business Law, Business Administration.*

Robert E. Goostree (1953), B.A., Southwestern at Memphis; M.A., Ph.D., State University of Iowa; J.D., American. *Joint: Professor, Washington College of Law; Government and Public Administration.*

Ronald Hugh Gorman (1969), B.B.A., M.B.A., Cincinnati. *Assistant Professor, Marketing and Business Management, Business Administration.*

Mariano E. Gowland (1964), Bachillerato, Buenos Aires; B.A., American. *Instructor in Languages and Linguistics.*

Leroy S. Graham (1960), B.A., American; B.D., Drew Theological Seminary; Ph.D., Drew University. *Assistant Professor of Sociology.* On leave 1969-70.

Edward J. Grant, B.A., B.S., Lehigh; M.S.E.E., George Washington. *Lecturer, Continuing Education.*

Jerry E. Gray, B.A., M.S., Texas A & M. *Professorial Lecturer, Continuing Education.*

Mary W. Gray (1968), B.A., Hastings College; M.A., Ph.D., University of Kansas. *Associate Professor of Mathematics and Statistics.*

Robert W. Gregg, A.B., Colgate University. *Dean, School of International Service; Professor, International Service.*

Linda Lubrano Greenberg (1968), B.A., Hunter College, CUNY; M.A., Ph.D., Indiana. *Assistant Professor in International Relations, International Service.*

Roger A. Gregory, *Assistant, AJUST.*
Thomas J. Griffin, B.A., M.A., American. *Lecturer, Continuing Education.*

Ernest S. Griffith, A.B., Hamilton; D.Phil., Oxford. *Founding Dean and University Professor, Emeritus, International Service.*

Barry H. Gross, B.S., Drexel Institute of Technology. *Lecturer, Continuing Education.*

Chalmer A. Gross (1959), B.S., M.S., Illinois; Ph.D., Chicago. *Professor of Education.*

Edith H. Grotberg (1963), B.A., Northwestern; M.A., Chicago; Ph.D., Northwestern. *Professor of Education.*

John Guandolo, A.B., Illinois; LL.B., Maryland. *Lecturer, Transportation, Business Administration.*

Daniel L. Gullig, B.S., Notre Dame, M.S., Carnegie Mellon University. *Lecturer, Continuing Education*

Emily D. Gunter (1970), B.S., American. *Lecturer, Continuing Education*

Michael Guralnick (1967), B.A., Michigan, M.S., Ph.D., Lehigh. *Assistant Professor of Psychology*

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- Research and Development Management
- Transportation and Logistics
- Urban Transportation

Master of Science

- Employee Relations
- Real Estate and Urban Development Planning
- Urban Transportation

Doctor of Philosophy

- Business Administration
- Business Administration Technology of Management

School of Government and Public Administration

Bachelor of Arts

- Political Science

Master of Arts

- Government
- Public Administration
- Public Administration Technology of Management

Master of Public Administration

- Technology of Management
- Urban Affairs

Doctor of Philosophy

- Government
- Public Administration
- Public Administration Technology of Management

School of International Service

Bachelor of Arts

- International Studies
- Interdisciplinary Studies
- Language and Area Studies

Master of Arts

- International Studies

- Language and Area Studies
- Area Studies

Master of International Service

Doctor of Philosophy

- International Studies

College of Continuing Education

Associate in Administration of Justice

Associate in General Studies

Bachelor of Science

- Administration of Justice
- General Studies

Master of Science

- Administration of Justice
- Correctional Administration
- Teaching
- Technology of Management

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